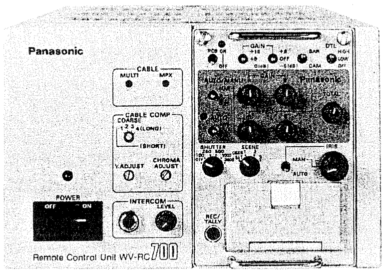
ORDER NO. AVS9204563C8

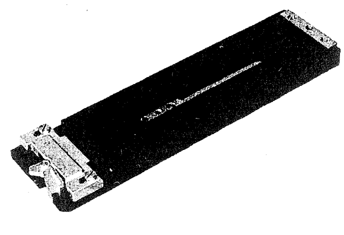
Service Manual

Remote Control Unit WV-RC700 Remote Control Box WV-CB700 Tripod Mounting Adaptor WV-QT700



WV-RC700

WV-CB700



WV-QT700

SPECIFICATIONS (WV-RC700)

Power Source :	WV-RC700/A, WV-RC700/B : 240V AC, 50 Hz, 70W WV-RC700/G : 230V AC, 50 Hz, 70W
Video Output :	1.0 Vp-p PAL composite / 75 ohms × 2 (BNC connectors)
Gen-lock Input :	1.0 Vp-p PAL composite or black burst signal / 75 ohms or Hi-z looping through × 1 (BNC connectors), auto termination
AUX (Line View) Input :	1.0 Vp-p PAL composite / 75 ohms or Hi-z looping through × 1(BNC connectors), auto termination
R/G/B, Y/PR/PB, Y/C/B Switching Output :	75 ohms × each 1 (BNC connectors)
R/G/B :	0.7 V
Y/C/B :	Y: 0.7 Vp-p C: 0.3 Vp-p
Y/RB/PB :	Y: 1.0 Vp-p PR, PB: 0.7 Vp-p
Sync Output :	4.0 Vp-p / 75 ohms × 1 (BNC)
S-Video Output :	Y: 0.7 Vp-p / 75 ohms × 1 (S connector) C: 0.3 Vp-p 75 ohms × 1 (S connector)
Intercom Jack :	M-6
Maximum Cable Length :	300 m with studio cable 300 m with cable compesator (Belden 8281)
Switches :	Cable Selection, Cable Length Compensation, High Gain Selection, 6 dB Gain Selection, Colour/Bar Camera Selection, Detail Level Selection, White/Black Balance Selection, Auto White / Auto Black Set, Lens Iris Selection, Scene Selection, Electronic Shutter Speed Selection, ENC/VF Selection, Subcarrier Phase Coase, RCB Operation, Up, Down, Item, Page, User Set
Controls :	Luminance Gain Fine, Chroma Gain Fine, Red and Blue Gain, Red and Blue Pedestal Level, Total Pedestal Level, Lens Iris, Fine, Horizontal Phase, Intercom Level
Ambient Operating Temperature :	−5°C - +45°C
Ambient Operating Humidity :	Less than 90 %
Dimensions :	207 (W) × 132 (H) × 370 (D) mm
Weights :	7.1 kg

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

SPECIFICATIONS (WV-CB700)

Video Output :	1.0 Vp-p PAL composite / 75 ohms × 1 (BNC connectors)
Gen-lock Input :	1.0 Vp-p PAL composite or black burst signal / 75 ohms × 1 (BNC connectors)
Intercom Jack :	M-6
Maximum Cable Length :	Approx. 25m with the optional RCB Cable WV-CA10B25. Approx. 50m with the optional RCB Cable WC-CA10B50.
Switches :	RCB Operation, High Gain Selection, 6 dB Gain Selection, Colour Bar/ Camera Selection, Detail Level Selection, White/Black Balance Selection, Auto White/Auto Black Set, Lens Iris Selection, Scene Selection, Electronic Shutter Speed Selection, Down, Up, Item, Page, ENC/VF Selection, User Set Switch
Controls :	Red and Blue Gain, Red and Blue Pedestal Level, Total Pedestal Level, Lens Iris, Subcarrier Phase Corse and Fine, Horizontal Phase for Gen-lock
Ambient Operating Temperature :	−5°C - +45°C
Ambient Operating Humidity :	Less than 90 %
Dimensions :	90 (W) × 131 (H) × 51.5 (D) mm
Weights :	0.37 kg

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

SPECIFICATIONS (WV-QT700)

Dimensions :	3-9/16" (W) × 13/16" (H) × 12-5/16" (D) 90 (W) × 20 (H) × 314 (D) mm
Weight :	2.0 lbs (950 g)

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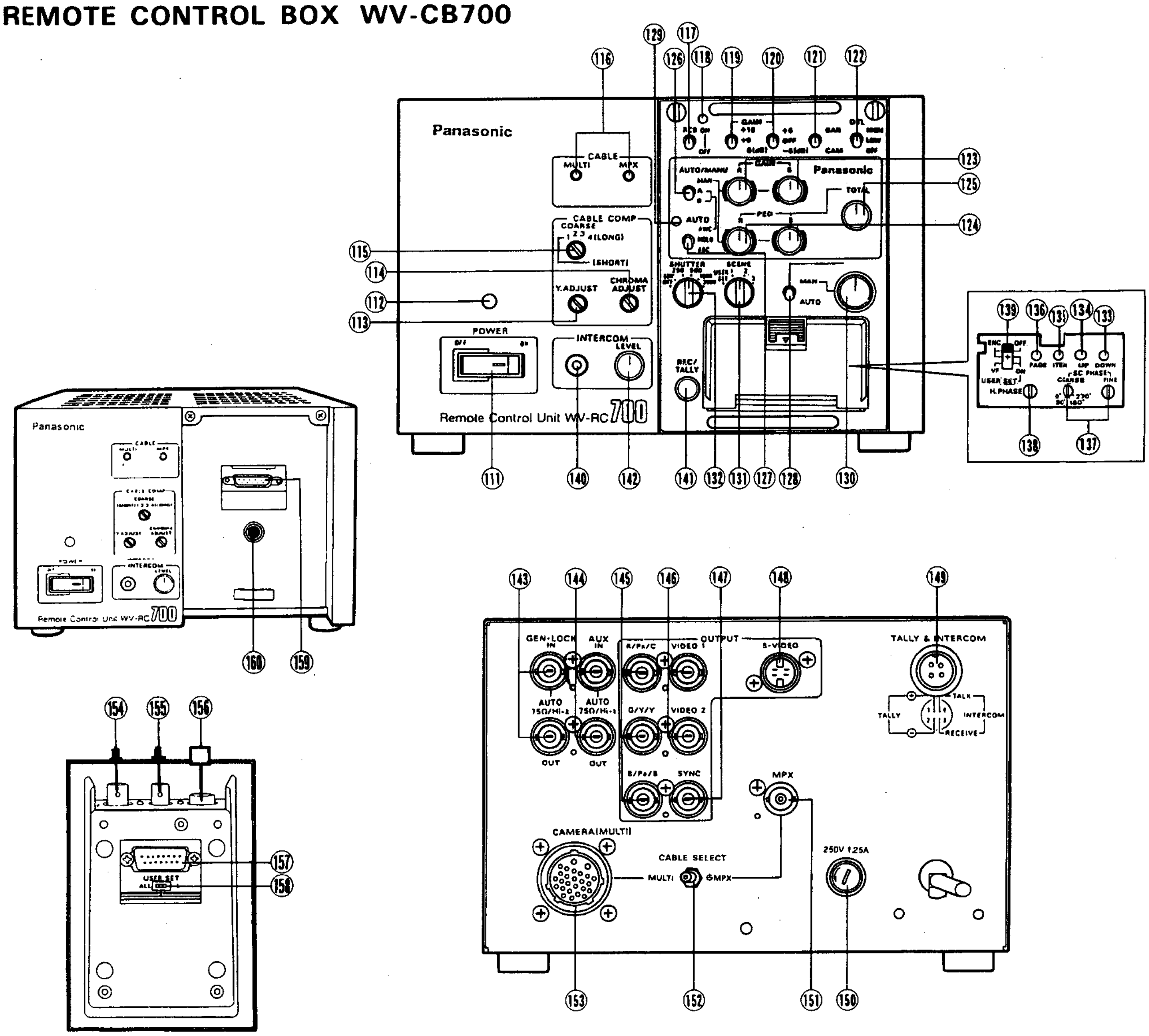
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

REMOTE CONTROL UNIT WV-RC700
REMOTE CONTROL BOX WV-CB700



Panasonic
CABLE
MULTI
MPX
CABLE COMP
COARSE
1 2 3 4(LONG)
(SHORT)
Y.ADJUST
CHROMA ADJUST
POWER
INTERCOM
LEVEL
Remote Control Unit WV-RC700
AUTO/MANU
GAIN
PED
TOTAL
SHUTTER
SCENE
MAN
AUTO
REC/TALLY
USER SET
H.PHASE
SC PHASE
COARSE
FINE
GEN-LOCK IN
AUX IN
AUTO 75Ω/Hi-z
OUT
OUTPUT
R/Pr/C
VIDEO 1
G/Y/Y
VIDEO 2
B/Pb/B
SYNC
S-VIDEO
TALLY & INTERCOM
TALLY
TALK
INTERCOM
RECEIVE
MPX
CAMERA(MULTI)
CABLE SELECT
MULTI
MPX
250V 1.25A
USER SET
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Note:
The numbering of the each item is same as the Operating Instructions of WV-F700E series.

111. **Power Switch (POWER, ON/OFF)**
This switch turns on and off the power of the Remote Control Unit (RCU).

112. **Power Indicator**
This switch lights red whenever the unit is operating.

113. **Luminance Gain Fine Control (Y ADJUST)**
This control allows for fine adjustment of the luminance signal level for matching the levels of all cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position.

114. **Chroma Gain Fine Control (CHROMA ADJUST)**
This control allows for fine adjustment of the chroma signal level for matching the chroma levels of all the cameras in a system. Adjust this control only after having set the Cable Length Compensation Switch (115) to the correct position.

115. **Cable Length Compensation Switch (CABLE/COMP)**
This switch is used to compensate for extensive cable lengths used with the 26-pin multi-cable between the camera and Remote Control Unit (RCU).
    1. Use for cable length of less than 75m
    2. Use for cable length of 75-150m
    3. Use for cable length of 150-230m
    4. Use for cable length of 230-300

    This switch is also used to compensate for extensive cable lengths used with the coaxial cable (5C-2V) between the camera and Remote Control Unit(RCU).
    1. Use for cable length of less than 150m
    2. Use for cable length of 150-300m
    3. Not available
    4. Not available

116. Cable Indicator (CABLE, MULTI/MPX)
This indicator shows the setting position of the Cable Selection Switch (152) on the rear panel.

117. Remote Control Box (RCB) Operation Switch (RCB)
When connecting the Remote Control Box to the camera without using the Remote Control Unit, set this switch to ON position. When the RCB is installed in the RCU this switch is inoperative.

118. Remote Control Box (RCB) Indicator (ON/OFF)
This indicator lights while control data is communicated between the camera and Remote Control Unit (RCU) or Remote Control Box (RCB).

119. High Gain Selection Switch (0 dB/+9 dB/+18 dB)
Normally set this switch to the 0 dB position. Positions +9 dB and +18 dB increase the video output amplitude for dark scenes and are equivalent to opening the lens iris 1.5 or 3 F-steps, respectively.

120. 6dB Gain Selection Switch (+6 dB/OFF/−6 dB)
Normally set this switch to OFF position. By the combination of this switch with the High Gain Selection Switch (119), fine adjustment of the gain level is available.

121. Colour Bar/Camera Selection Switch (BAR/CAM)
In a system configuration, this switch is used for signal selection between camera mode and colour bar mode.

BAR:
A colour bar signal is provided from the Video Output Connector (146) on the Remote Control Unit (RCU).

CAM:
The actual picture, as picked up through the lens, is displayed.

122. Detail Level Selection Switch (DTL, LEVEL-HIGH/LOW/OFF)
The detail/aperture level can be selected by this switch in three steps. Set this switch to the desired position while observing the sharpness of the picture.

123. Red and Blue Gain Controls (R GAIN/B GAIN)
These controls are used to manually adjust the white balance.
These controls only work when the White/Black Balance Selection Switch (126) is set to the MANU position.
Turn the controls clockwise to increase the red and blue signal levels, and counterclockwise to decrease these levels.

Note:
As these controls employ Digital Processing, the Red and Blue signal levels will be changed in discrete steps.

124. Red and Blue Pedestal Level Controls (PED, R/B)
The black balance can be set manually by these controls when the White/Black Balance Selection Switch (126) is set to the MANU position. Turn these controls clockwise to increase the red and blue pedestal levels, and counterclockwise to decrease the levels.

Note:
As these controls employ the Digital Processing, these levels will be changed in the steps.

125. Total Pedestal Level Control (TOTAL PEDESTAL)
This control can adjust the pedestal level of the video signal (luminance) for matching the black level between two or more cameras in a system. Turn this control clockwise to increase the pedestal level, and counterclockwise to decrease the level.

Note:
As this control employs the Digital Processing, this level may be changed in the step.

126. White/Black Balance Selection Switch (AUTO/MANU,MAN/A/B)
This switch is used to select the white balance and black balance modes as follows:

MAN:
The white balance and black balance can be adjusted by the Red and Blue Gain Controls (123) and the Red and Blue Pedestal Level Controls (124).

A: The White Balance can be set automatically by pressing the Auto White/Auto Black Set Switch (127) upwards. The setting is stored in memory A.

B: Similar to A, but the setting is stored in memory B.

Note:
Two white balance setting, one each for different lighting conditions such as indoor and outdoor, may be stored in the two memories, A and B.

127. Auto White/Auto Black Set Switch (AWC/HOLD/ABC)
This switch sets the white balance and black balance automatically as follows:

AWC:
This position is used for setting the white balance when the White/Black Balance Selection Switch (126) is set to the A or B position of the White/Black Balance Selection Switch. White balance adjustment is required when "AWC A NG" or "AWC B NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) lights.

HOLD:
In this position, the white and black balances set at the AWC or ABC position can be held fixed, if so desired, for at least one year.

ABC:
This position is used for setting the black balance when the White/Black Balance Selection Switch (126) is set to the A or B position. Black balance adjustment is required when "ABC NG" is displayed in the viewfinder or when the Auto Warning Indicator (129) on the Remote Control Unit (RCU) lights.

Note:

Since the black balance adjustment is always automatically performed the picture will flash in the viewfinder and on the monitor screen while the black balance is being set. This flashing indicates that the adjustment is currently being performed and will cease once the adjustment is completed.

128. Lens Iris Selection Switch (IRIS, MAN/AUTO)

This switch is used to set the lens iris of the auto iris servo control zoom lens as follows.

Auto:

The iris level of the lens is controlled automatically.

Note:

Be sure to set the Iris Control Selection Switch on the zoom lens to the AUTO posiiton.

MAN:

The iris level of the lens is controlled to the desired level by using the Lens Iris Control (130).

129. Auto Warning Indicator (AUTO)

This indicator blinks while the white balance or black balance is being automatically set. It goes out once the white and black balances have been correctly set.
This indicator lights when the white or black balance is set improperly. In this case, carry out the automatic setting procedure for white and/or black balance.

130. Lens Iris Control (IRIS)

The iris level of the zoom lens can be manually controlled by turning this control when the Lens Iris Selection Switch (128) is set to the MAN position.

131. Scene Selection Switch (SCENE)

This switch is used to select the most suitable camera conditions, depending on scene conditions, to obtain the best picture possible.
Refer to page 18 for details.

132. Electronic Shutter Speed Selection Switch (OFF/120/250/500/1000/2000)

This switch is operative only when a camera featuring the electronic shutter is connected with the Remote Control Unit (RCU).
When fast-moving objects are shot at the slow shutter speeds typically found in conventional cameras they will appear blurred. The WV-F700E camera, however, features an electronic shutter function from which the following speeds can be selected: 1/120,1/250,1/500,1/1000 or 1/2000 of a second. As a result, blur-free recording of high-speed action, such as car racing, golf swings, gymnastics, birds in flight is possible.
The selection of shutter speed is made by pressing this switch.

OFF:

Set this switch to this position when recording normally with standard shutter speeds.

1/120,1/250,1/500,1/1000,1/2000:

Choose the suitable shutter speed from these.

133. Down Switch (DOWN)

This switch is used to decrease the set value in the item pointed out by the cursor.

134. Up Switch (UP)

This switch is used to increase the set value in the desired item pointed out by the cursor.

135. Item Switch (ITEM)

This switch is used to choose the item in the set-up menus.

136. Page Switch (PAGE)

This switch is used to choose the desired set-up menu from the four menus.

137. Subcarrier Phase Coarse and Fine Controls (SC PHASE COARSE/FINE)

These controls allow for adjustment of the camera signal subcarrier phase from 0° to 360°, to match the phase with that of the burst signal at the Gen-lock Input Connector (143) in a system configuration.
The COARSE control adjusts the subcarrier phase from 0° to 360° in 90° steps, while the FINE control allows for continuous fine adjustment over a range of 90°.

138. Horizontal Phase Control for Gen-lock (H PHASE)

The horizontal phase of the camera signal can be adjusted to match the horizontal phase of the signal at the Gen-lock Input Connector (143).

139. ENC/VF Selection Switch (ENC/VF, OFF/ON)

This switch selects Encoder output or EVF (black and white) output from the Video Output Connector and whether the User Set Function is available as follows:

1. Switch set to position #1:
   Encoder is output from the Video Output Connector on the RCB and the User Set function is not available.
2. Switch set to position #2:
   Encoder is output from the Video Output Connector on the RCB and the User Set function is available.
3. Switch set to position #3:
   EVF (black and white) signal is output from the Video Output Connector on the RCB, User Set function is available and the User Set menu is displayed on the monitor.

140. Intercom Jack (INTERCOM)

This jack is used for communications between the camera operator and Remote Control Unit (RCU) operator in a system configuration with a Special Effects Generator.

141. Tally Indicator (REC/TALLY)

When the Remote Control Unit (RCU) is used in conjuction with a Special Effects Generator, the Tally Indicator inside the viewfinder as well as this indicator on the Remote Control Unit (RCU) will light to indicate that recording is in progress.

Note:

When using the Remote Control Box (RCB) in the Remote Control Unit (RCU), the recording start/stop function is not available.

142. Intercom Level Control (INTERCOM, LEVEL)

Use this control to adjust the volume level in the headset connected to the Intercom Jack (140).

143. Gen-lock Input Connectors (BNC)
(GEN-LOCK IN AUTO 75Ω/Hi-Z OUT)

These connectors receive the gen-lock signal (black burst or composite) from the Special Effects Generator for system reference.
When connecting a coaxial cable with BNC connector to the Gen-lock Input Connector (143), the high impedance video loop is automatically selected. At all other times, these connectors are automatically terminated with 75 ohms.

Caution:

As this connector is in parallel connection with the Remote Control Box Gen-lock Input Connector (155), do not input gen-lock signals to both of these connectors simultaneously.

144. Auxiliary Input Connectors
(AUX IN-AUTO/75Ω HI-Z OUT)

These connectors receive the lineview signal from a Special Effects Generator. Two connectors are provided for bridging or looping application.
When connecting a coaxial cable with BNC connector to this connector, this connector is automatically terminated with 75 ohms.

145. Red, Green and Blue Output Connectors
(OUTPUT-R/PR/C, G/Y/Y, B/PB/B)

Signals supplied from these connectors are selected by the RCU/VTR Signal Selection Switch on the Camera Adaptor.

Note:

The RCU/VTR Signal Selection Switch on the Camera Adaptor has been set to the ENC position at the factory.

146. Video Output Connectors
(OUTPUT-VIDEO 1,VIDEO,2)

These connectors supply a composite video signal to a Special Effects Generator, a Video Monitor or a VTR.

Note:

This connector is in parallel connection with the Monitor Output Connector (154) on the Remote Control Box (RCB).

147. Sync Output Connector (SYNC OUTPUT)

This Connector supplies a negative 4Vp-p/75 sync signal to the Sync Input of an RGB Colour Video Monitor for synchronization.

148. S-Video Output Connector (S-VIDEO)

This connector outputs the Y/C signal when the RCU/VTR Signal Selection Switch on the camera adaptor is set to the Y/C/B Position.

149. Tally and Intercom Input Connector
(TALLY & INTERCOM)

Connect a 4-pin cable between this connector and the Tally and Intercom output of the Special Effects Generator.

150. Fuse (250V 1.25A)

151. Multiplex Connector (MPX)

This connector is connected to the Multiplex Connector of the camera with coaxial cable (5C-2V or equal).

Note:

When using this connector, set the Cable Selection Switch (152) to MPX position.

152. Cable Selection Switch
(CABLE SELECT, MULTI/MPX)

Set this switch to the MULTI or MPX position according to the control cable used.

MULTI:

Select this position when the 26-pin cable (Multi cable) is used to control the camera.

MPX:

Select this position when the coaxial cable (5C-2V) is used to control the camera.

Caution:

Do not use the multi cable and the coaxial cable together.

153. Multi-cable Connector (CAMERA)

This connector is connected with the VTR/RCU Connector by using the multi-cable (26-pin).

Note:

Be sure to set the Cable Selection Switch (152) to the MULTI position.

154. Monitor Output Connector of the Remote Control Box (RCB)

As this connector is in parallel connection with the VIDEO 2 OUTPUT Connector (146), do not output the signal simultaneously from both connectors.

155. Gen-lock Input Connector of Remote Control Box

This connector is used to input the gen-lock signal to the Remote Control Box when using the Remote Control Box extended from the Remote Control Unit.

156. Remote Control Unit Extension Connector

This connector is used to extend the Remote Control Box from the Remote Control Unit or from the camera by using the optional RCB cable (WV-CA10B25/WV-CA10B50).
The maximum cable length for the extension is 100m.
Refer to the following table.

Cable length	(m)	2	25	50	100
Decrement		10%	15%	20%	30%

Note:

As the video level is changed by using various cable lengths, under certain conditions it may be out of the specification for the WV-F700E series.

157. Remote Control Unit Connector

This connector is used for directly connecting with the Remote Control Box Connector (159) on the Remote Control Unit.

158. User Set Switch (USER SET)

By setting this switch when the Scene Selection Switch (131) is set to the USER SET position, the page selection of the set up menus is available as follows.

All:

All the pages (page1-page4) in the set up menu are displayed by setting this switch to this position.

1: Page 1 and 2 are displayed by setting this switch to this position.

2: Only Page 3 is displayed by setting this switch to this position.

Refer to "THE USER SETTING OPERATION" on page 18 for the details.

159. Remote Control Box Connector

This connector is connected directly with the Remote Control Unit Connector (157) on the Remote Control Box.

160. Remote Control Box Extension Connector

This is connected to the Remote Control Unit Extension Connector (156) on the Remote Control Box by using the optional cable.

Refer to item 156 for more details.

REMOTE CONTROL UNIT RACK MOUNT FRAME WV-Q70

161. Rack-mounting Spacer

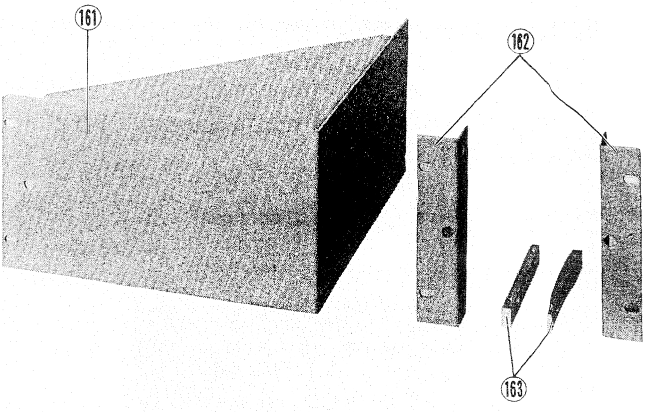
This is used when mounting a single Remote Control Unit in a rack.

162. Rack-mounting Angles

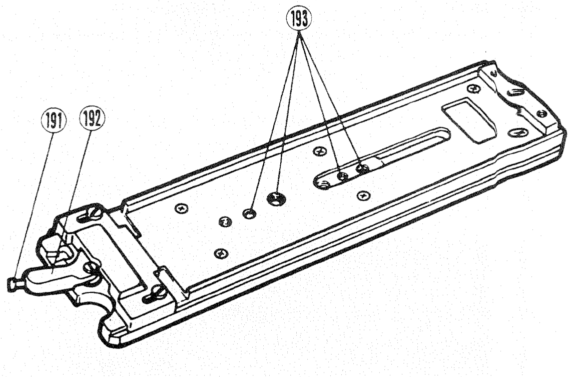
These two Rack-mounting Angles are used for mounting two Remote Control Units side by side in a rack.

163. Remote Control Unit Joining Bar

These bars are used to join two Remote Control Units together.



TRIPOD MOUNTING ADAPTOR WV-QT700



191. Release Button

The Lock Lever (192) can be unlocked by pressing this button.

192. Lock Lever

The mounting or removing of the camera from the Tripod Mounting Adaptor WV-QT700 is made by locking or unlocking this lever.

193. Mounting Holes

These holes are used to mount the Tripod Mounting Adaptor on the tripod.

ADJUSTMENT PROCEDURE

1. Test Equipment

Following equipments are required for adjustment of WV-RC700.

- Oscilloscope (Dual trace, More than 100 MHz bandwidth and Delayed Sweep)
- Waveform Monitor
- Vectorscope
- Color Video Monitor
- Digital Voltmeter (DVM)
- Special Effects Generator
- Test signal Generator
- Camera WV-F700 with camera adaptor (Completely adjusted)
- Studio Cable WV-CA26U30 (30m)
- Coaxial Cable 5C2V (3m)
- Extension board (YWV0EA0177AN)

2. Disassembling Procedure for Adjustment

- Remove ten screws and remove Upper Cover.

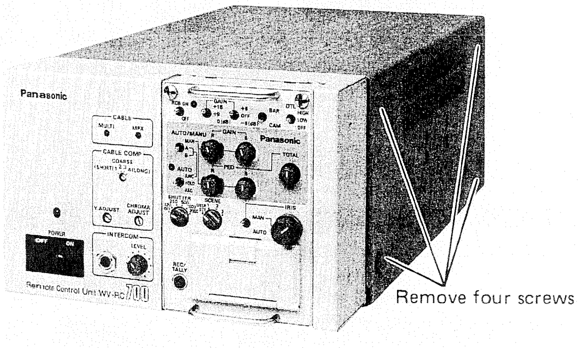

Remove four screws

Fig 2-1

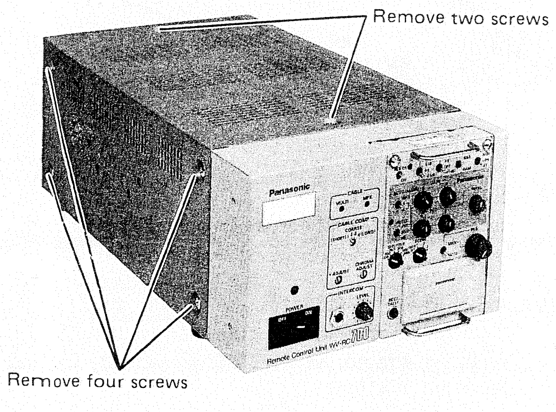

Remove two screws
Remove four screws

Fig 2-2

3. Connection and Setting Up for Adjustment

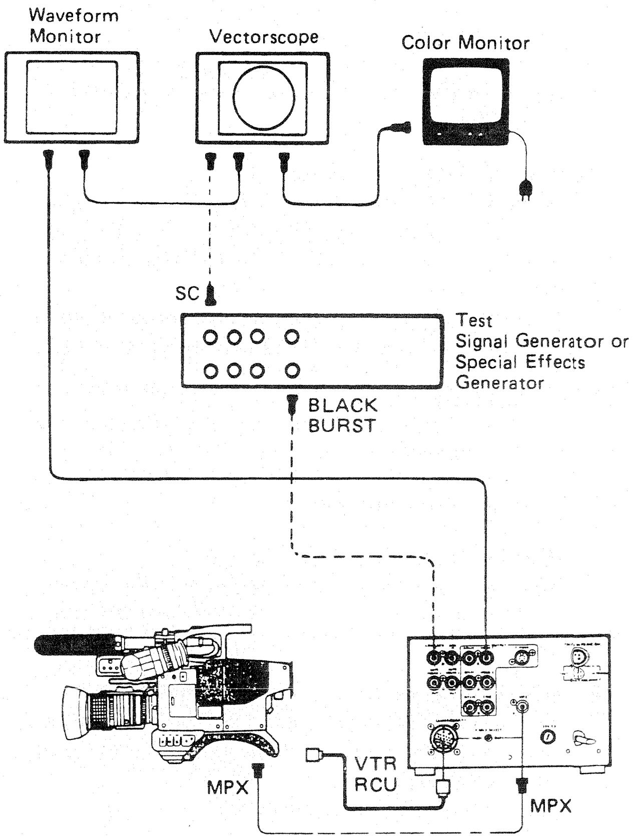

Waveform Monitor
Vectorscope
Color Monitor
SC
Test Signal Generator or Special Effects Generator
BLACK BURST
MPX
VTR RCU
MPX

Fig 3-1

Connection

- Connect the coaxial cable between the video output connector on the rear of Remote Control Unit (RCU)WV-RC700 and the video input connector of the waveform monitor.
- Connect the coaxial cable between the video output connector of the waveform monitor and the video input connector of the vector scope and the video input connector of the color monitor.
- Connect the Studio Cable (WV-CA26U30) between the VTR/RCU connector on the rear of camera adaptor and Multi-cable connector on the rear of RCU.
- Terminate the video input connector of the color monitor with 75 ohms.

Setup

- Turn on the camera and RCU for warming up of least 30 minutes period to adjustment.

Position of Controls and Switches on the Camera

Remote Control Box Operation Switch	ON
Color Bar/camera Selection Switch	BAR
Cable Selection Switch	MULTI

4. Adjustment

- When adjusting the Power board, Video board, Modulator board and Demodulator board use the following extension board. (YWV0EA0177AN)

■ Power Supply board Adjustment

(1) Vo RCU Adjustment

Test point :	Pin 28 (Vo RCU) of CN1	Power board
Adjust :	VR201 (Vo RCU ADJ)	Power Supply board

- Connect the digital Voltmeter to pin 28 of CNI on the Power board.
- Adjust VR201 (Vo RCU ADJ) for +15.2V ± 0.1V.

■ Power board Adjustment

(2) Switching Freqtency adjustment

Test point :	TP4 (SW FREQ)	Power board
Adjust :	VR2 (SW FREQ ADJ)	Power board

- Connect the oscilloscope to TP4 (SW FREQ) of Power board.
- Adjust VR2 (SW FREQ ADJ) so that the phase of Reset pulse becomes 4T as shown in Fig 4-1

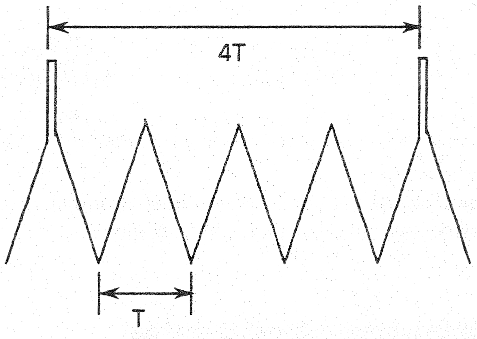


Fig4-1

(3) +8.8V adjustment

Test point :	TP7 (+8.8V)	Power board
Adjust :	VR1 (+8.8V ADJ)	Power board

- Connect the DVM to TP7 (+8.8V) of CN1 on the Power board.
- Adjust VR1 (+8.8V ADJ) for +8.8±0.05V.

■ Video board Adjustment

(4) Y and Chroma adjustment

Test point :	Pin 24 (Y ADJUST) of CN1	Video board
	Pin 25 (CHROMA ADJUST) of CN1	Video board
Adjust :	VR1 (LUMINANCE GAIN FINE CONTROL)	Front board
	VR2 (CHROMA GAIN FINE CONTROL)	Front board

- Connect the DVM to Pin 24 of CN1 on the Video board.
- Adjust VR1 (LUMINANCE GAIN FINE CONTROL) on the front board for 5.0V ± 0.05V.
- Connect the DVM to Pin 25 of CN1 on the Video board.
- Adjust VR2 (CHROMA GAIN FINE CONTROL) on the front board for 6.0V ± 0.3V.

(5) Frequency response adjustment

Test point :	TP3 (VBS FREQ RESPONSE)	Video board
	TP202 (RFREQ RESPONSE)	Video board
	TP302 (BFREQ RESPONSE)	Video board
	TP402 (G FREQ RESPONSE)	Video board
Adjust :	VR1 (VBS FREQ RESPONSE)	Video board
	VR201 (R FREQ RESPONSE)	Video board
	VR301 (B FREQ RESPONSE)	Video board
	VR401 (G FREQ RESPONSE)	Video board

- Connect the DVM to TP3 (VBS FREQ RESPONSE) on the Video board.
- Adjust VR1 (VBS FREQ RESPONSE) on the Video board for +6.5V ± 0.05V.
- Connect the DVM to TP202 (R FREQ RESPONSE) on the board.
- Adjust VR201 (R FREQ RESPONSE) on the Video board for +6.5V ± 0.05V.
- Connect the DVM to TP302 (B FREQ RESPONSE) on the board.
- Adjust VR301 (B FREQ RESPONSE) on the Video board for +6.5V ± 0.05V.
- Connect the DVM to TP402 (G FREQ RESPONSE) on the board.
- Adjust VR401 (G FREQ RESPONSE) on the Video board for +6.5V ± 0.05V.

(6) Video gain adjustment

Test point :	Pin 16 (VIDEO 1) of CN1	Video board
Adjust :	VR2 (VIDEO GAIN)	Video board

- Connect the oscilloscope to pin 16 (VIDEO 1) of CN1 on the Video board.
- Adjust VR2 (VIDEO GAIN) on the Video board so that the video signal becomes 0.7V ±0.007V.

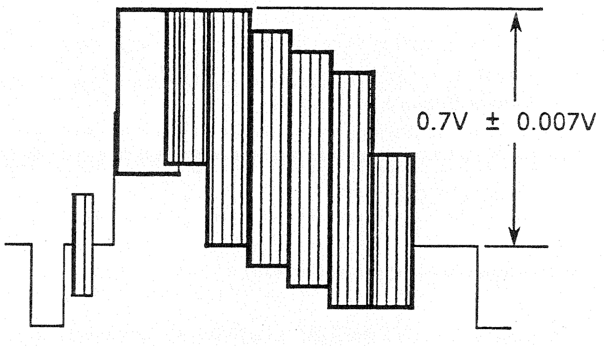


Fig 4-2

(7) G gain adjustment

Test point :	Pin 22 (G/MII Y/Y) of CN1	Video board
Adjust :	VR402 (G/MII Y/Y GAIN)	Video board

- Connect the oscilloscope to pin 22 (G/MIIY/Y) of CN1 on the Video board.
- Adjust VR402 (G/MIIY/Y GAIN) on the Video board so that the G/MIIY/Y signal level becomes 0.7V ± 0.007V.

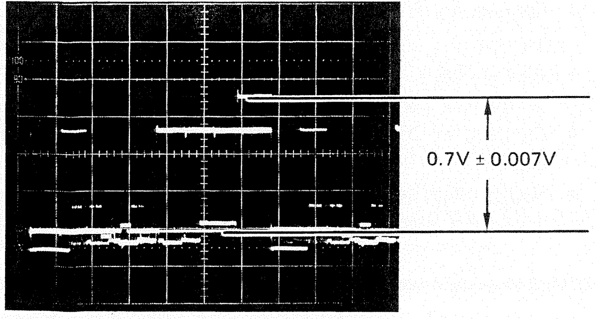


Fig4-3

(8) R gain adjustment

Test point :	Pin 20 (R/PR/C) of CN1	Video board
Adjust :	VR202 (R GAIN)	Video board

- Connect the oscilloscope to pin 20 (R/PR/C) of CN1 on the Video board.
- Adjust VR202 (R GAIN) on the Video board so that the R/PR/C signal level becomes 0.7V ± 0.007V.

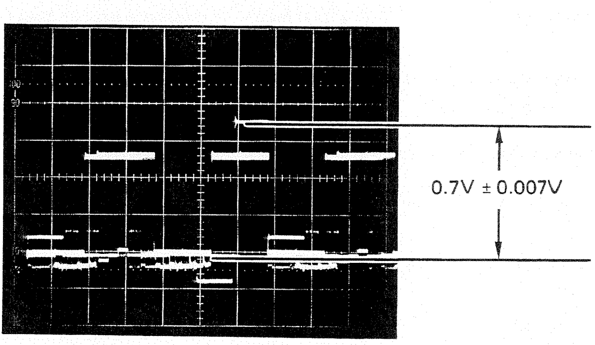


Fig4-4

(9) B gain adjustment

Test point :	Pin21 (B/PB/B) of CN1	Video board
Adjust :	VR302 (B GAIN)	Video board

- Connect the oscilloscope to pin 21 (R/PR/C) of CN1 on the Video board.
- Adjust VR302 (B GAIN) on the Video board so that the B/PB/B signal level becomes 0.7V ± 0.007V.

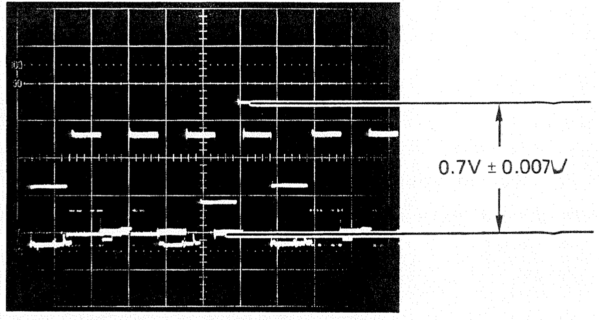


Fig4-5

(10) Gen-lock sync and burst level adjustment

Test point :	Pin 30 (MPX GEN-LOCK) of CN1	Video board
Adjust :	VR601 (BURST LEVEL)	Video board
	VR602 (BURST LEVEL)	Video board

- Connect the oscilloscope to pin 30 (MPX GEN-LOCK) of CN1 on the Video board.
- Adjust VR602 (SYNC LEVEL) on the Video board so that the sync level is + 1.0V ±0.1V.
- Adjust VR601 (BURST LEVEL) on the Video board so that the burst level becomes 1.0V ± 0.1V.

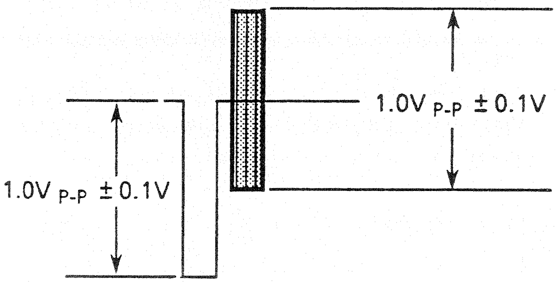


Fig 4-6

(11) AUX level adjustment

Test point :	TP501 (AUX)	Video board
Adjust :	VR501 (AUX LEVEL)	Video board

- Supply the stair step signal to Auxiliary Input Connector on the rear of RCU from Test signal generator (T.S.G.)
- Connect the oscilloscope to TP501 (AUX) on the Video board.
- Adjust the VR501 (AUX LEVEL) on the Video board so that stair step signal level becomes 1.75V ± 0.2V.

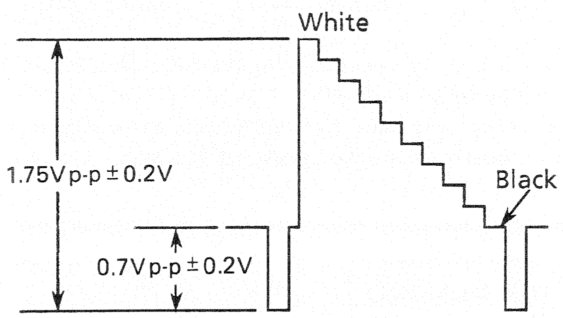


Fig 4-7

■ Demodulator board Adjustment

- Disconnect the Studio Cable (WV-CA26U30) between the VTR/RCU connector on the rear of Camera adaptor and Multi-cable connector on the rear of RCU.
- Connect the coaxial cable (5C2V) between the Multiplex Signal Connector (MPX) on the rear of camera adaptor and Multiplex Connector
- Position of switches on the Camera adaptor, RCU and RCB

(Camera)
Cable Selection Switch .... MPX
(RCU)
Cable Selection Switch .... MPX
(RCB)
Remote Control Box Operation Switch .. ON
Color Bar/Camera Selection Switch ...... BAR

(12) Video gain adjustment

Test point :	TP7 (VIDEO 2)	Demodulator board
Adjustment :	VR1 (VIDEO GAIN)	Demodulator board

- Connect the oscilloscope to TP7 (VIDEO 2) on the Demodulator board.
- Adjust VR1 (VIDEO GAIN) on the Demodulator board so that the Video signal level becomes 1.0V p-p ± 0.05V p-p.

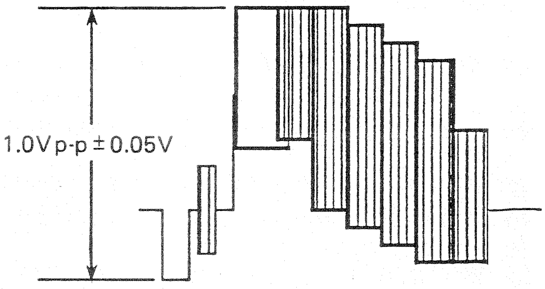
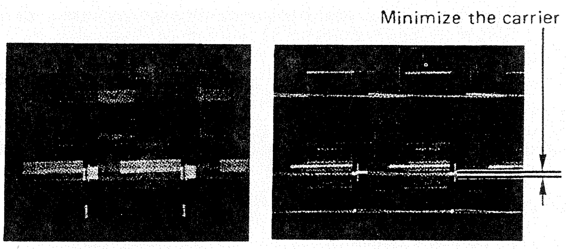


Fig 4-8

(13) Clamp pulse phase adjustment

Test point :	TP7 (VIDEO 2)	Demodulator board
Adjust :	VR2 (CLAMP PULSE PHASE)	Demodulator board

- Connect the oscilloscope to TP7 (VIDEO 2) on the Demodulator board.
- Trigger the oscilloscope at V rate.
- Turn VR2 (CLAMP PULSE PHASE) on the Demodulator board fully clockwise and turn it back slowly and stop it when minimize the distortion of vertical blanking pulse.
- Confirm the video signal level becomes 1.0V p-p ± 0.05V p-p.
  If not, readjust the (12) Video gain adjustment.



NO GOOD　　GOOD

Fig 4-9

(14) AGC pulse phase adjustment

Test point :	TP7 (AGC PULSE)	Modulator board
	Pin 28 (VD) of CN1	Modulator board
Adjust :	VR5 (AGC PULSE PHASE)	Modulator board

- Connect 2 probes of the oscilloscope to TP7 (AGC PULSE) on the Modulator board and pin 28 (VD) of CN1 on the Modulator board.
- Set the oscilloscope at H rate and dual display.
- Expand the AGC pulse period on the oscilloscope
- Adjust VR5 (AGC PULSE PHASE) so that the width of AGC pulse becomes 100µsec ± 10µ sec from fall of VD pulse.

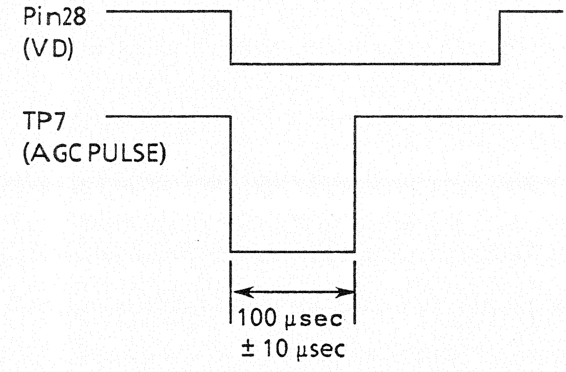


Fig 4-10

(15) AGC pulse adjustment

Test point :	Pin 28 (VD) of CN1	Demodulator board
	TP3 (AGC PULSE)	Demodulator board
Adjust :	VR3 (AGC PULSE PHASE)	Demodulator board
	VR4 (AGC PULSE WIDTH)	Demodulator board

- Connect the 2 probes of the oscilloscope to TP3 (AGC PULSE) on the Demodulator board and pin 28 (VD) of CN1 on the Demodulator board.
- Set the oscilloscope dual display and expand the AGC pulse period on the oscilloscope.
- Adjust VR3 (AGC PULSE PHASE) on the Demodulator board so that the leading edge of VD at pin 28 of CN1 lags 220µ sec ± 10µ sec the leading edge of AGC pulse at TP3.
- Adjust VR4 (AGC PULSE WIDTH) on the Demodulator board so that the width of AGC pulse becomes 60µ sec ± 5µ sec.

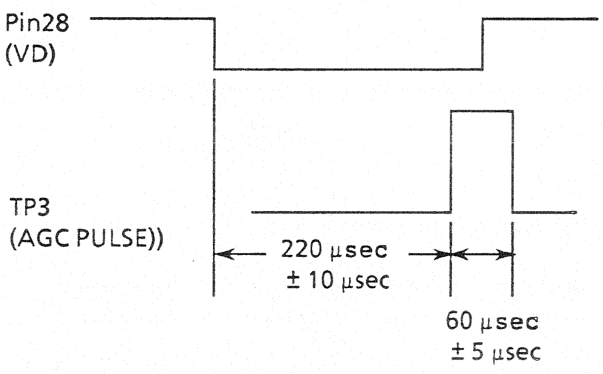


Fig 4-11

(16) AGC cancel adjustment

Test point :	TP4 (AGC CANCEL)	Demodulator board
Adjust :	VR5 (AGC CANCEL)	Demodulator board

- Connect the oscilloscope to TP4 (AGC CANCEL) on the Demodulator board.
- Adjust VR5 (AGC CANCEL) so that the width of AGC cancel pulse becomes 340µ sec ± 10µ sec.

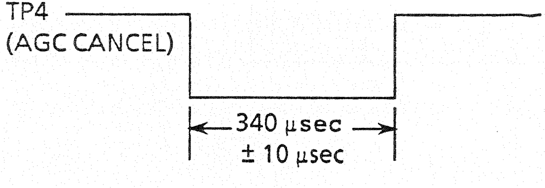


Fig. 4-12

(17) Data cancel adjustment

Test point :	TP5 (DATA CANCEL)	Demodulator board
Adjust :	VR6 (DATA CANCEL)	Demodulator board

- Connect the oscilloscope to TP5 (DATA CANCEL) on the Demodulator board.
- Adjust VR6 (DATA CANCEL) so that the width of Data cancel pulse becomes 100μ sec ± 10μ sec.

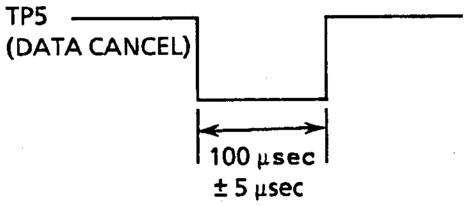


Fig 4-13

(18) Command adjustment

Test point :	TP10 (RCU MPX)	Modulator board
Adjust :	VR4 (COMMAND LEVEL)	Modulator board
	VR7 (COMMAND MOD-2)	Modulator board

- Set the Gen-lock ON/OFF Switch SW1 on the Modulator board, Command ON/OFF Switch SW2 on the Modulator board to ON position.
- Set the VR4 (COMMAND LEVEL) on the Modulator board to mechanical center and VR6 (COMMAND MOD-1) on the Modulator board to fully clockwise.
- Connect the oscilloscope to TP10 (RCU MPX) on the Modulator board.
- Trigger the oscilloscope at V rate.
- Adjust VR7 (COMMAND MOD-2) on the Modulator board so that the carrier on the RCU MPX signal becomes minimum.
- Adjust VR4 (COMMAND LEVEL) on the Modulator board so that the Command signal level becomes 1.5V ± 0.2V.

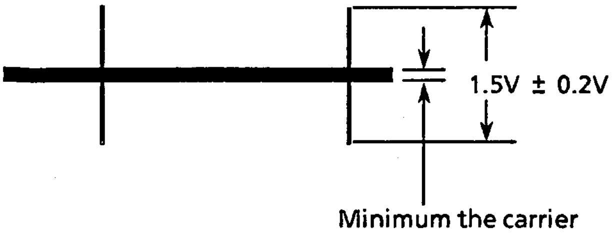


Fig 4-14

(19) Command AGC level adjustment

Test point :	TP1 (COMMAND AGC)	Demodulator board
Adjust :	VR7 (COMMAND AGC)	Demodulator board

- Connect the oscilloscope to TP1 (COMMAND AGC) on the Demodulator board.
- Trigger the oscilloscope at V rate.
- Adjust VR7 (COMMAND AGC) so that the command AGC level becomes 0.45V ± 0.05V.

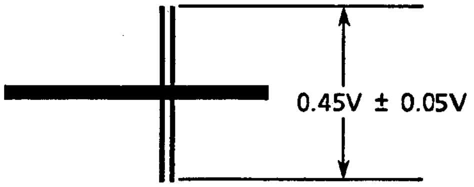


Fig 4-15

(20) Command pulse adjustment

Test point :	TP2 (COMMAND PULSE)	Demodulator board
Adjust :	CT1 (COMMAND CARRIER)	Demodulator board

- Connect the oscilloscope to TP2 (COMMAND PULSE) on the Demodulator board.
- Adjust CT1 (COMMAND CARRIER) on the Demodulator board so that the carrier on the command pulse becomes minimum.

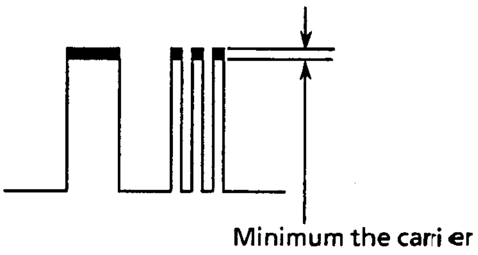


Fig4-16

■ Modulator board Adjustment

- Supply the Black Burst signal or Color bar signal to Gen-lock Input Connector on the rear of RCU from T.S.G. or Special Effects Generator (S.E.G.).

(21) AGC pulse phase adjustment

Test point :	TP7 (AGC PULSE)	Modulator board
Adjust :	VR5 (AGC PULSE PHASE)	Modulator board

- Connect the oscilloscope to TP7 (AGC PULSE) on the Modulator board.
- Adjust VR5 (AGC PULSE WIDTH) on the Modulator board so that the width of AGC pulse becomes 100µ sec ± 5µ sec.

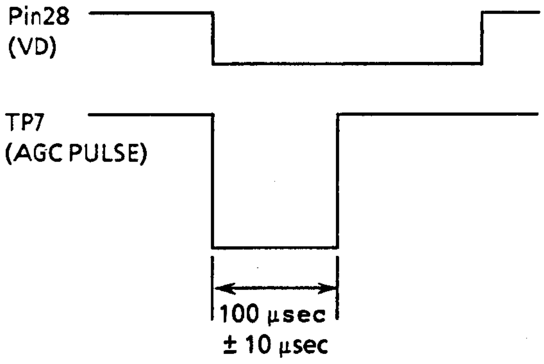


Fig 4-17

(22) Gen-lock modulation adjustment

Test point :	TP10 (RCU MPX)	Modulator board
Adjust :	VR2 (G/L MOD-2)	Modulator board
	VR3 (G/L LEVEL)	Modulator board

- Set the Gen-lock ON/OFF Switch on the Modulator board to ON position and Command ON/OFF Switch SW2 on the Modulator board to OFF position.
- Connect the oscilloscope to TP10 (RCU MPX) on the Modulator board.
- Set the VR3 (G/L LEVEL) on the Modulator board to mechanical center and VR1 (G/L MOD-1) on the Modulator board to fully clockwise.
- Adjust VR2 (G/L MOD-2) on the Modulator board so that the carrier on the gen-lock signal becomes minimum.
- Adjust VR3 (G/L LEVEL) on the Modulator board so that the gen-lock signal level becomes 2.3V ± 0.1V.

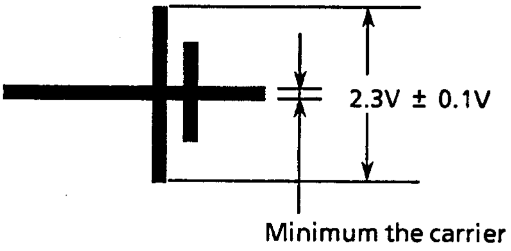


Fig 4-18

(23) Command modulation adjustment

Test point :	TP10 (RCU MPX)	Modulator board
Adjust :	VR4 (COMMAND LEVEL)	Modulator board
	VR7 (COMMAND MOD-2)	Modulator board

- Set the Gen-lock ON/OFF Switch SW1 on the Modulator board to OFF position and Command ON/OFF Switch SW2 on the Modulator board to OFF position.
- Connect the oscilloscope to TP10 (RCU MPX) on the Modulator board.
- Set the VR4 (COMMANDS LEVEL) on the Modulator board to mechanical center and VR6 (COMMAND MOD-1) on the Modulator board to fully clockwise.
- Adjust VR7 (COMMAND MOD-2) on the Modulator board so that the carrier on the command signal becomes minimum.
- Adjust VR7 (COMMAND LEVEL) on the Modulator board so that the command signal level becomes 1.5V ± 0.1V.

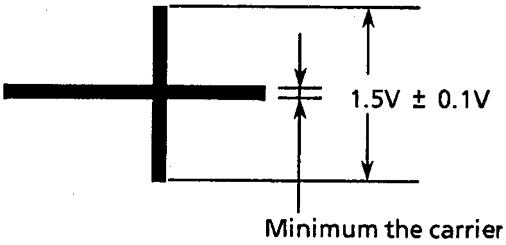


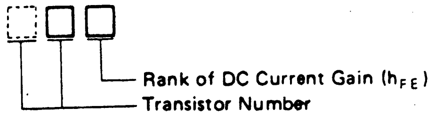
Fig 4-19

- Reset the Gen-lock ON/OFF Switch SW1 on the Modulator board to ON position.
- Confirm the Command ON/OFF Switch SW2 on the Modulator board to ON position.

5. CHIP COMPONENTS

1. Chip Transistor

The transistor number is indicated on the top surface of the chip transistor using two alphabet letters or one numerical and two alphabet letters.


Rank of DC Current Gain (h_{FE})
Transistor Number

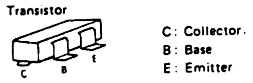
Transistor Number

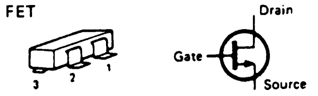
Letter	Transistor No.	Letter	Transistor No.
A	2SB709	X	2SD602A
B	2SB709A	Y	2SD601
C	2SB710	Z	2SD601A
D	2SB710A	1Z	2SD1030
E	2SA1022	1N	2SK199
F	2SA1034	1O	2SK198
H	2SA1035	1A	2SB799
I	2SB792	1B	2SB814
K	2SC2778	1C	2SB902
P	2SD814	1F	2SK321
Q	2SD813	1L	2SK247
R	2SC2480	1K	2SK316
S	2SC2405	1M	2SJ84
T	2SC2406	1T	2SC3077
U	2SC2404	1X	2SC2845
V	2SC2295	2B	2SK374
W	2SD602	2C	2SK116

Example

WQ ⟶ 2SD602 – Q
YQ ⟶ 2SD601 – Q
1BS ⟶ 2SB814 – S

Appearance and Symbols

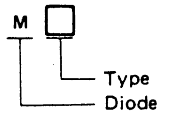

Transistor
C
B
E
C: Collector
B: Base
E: Emitter


FET
3
2
1
Drain
Gate
Source

	1	2	3
Except 2SK199	Drain	Source	Gate
2SK199	Gate	Drain	Source

2. Chip Diode

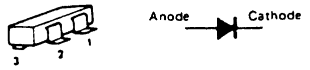
The diode number is indicated on the top surface of the chip diode using Two alphabet letters.


M
Type
Diode

Diode Number

Letter	Diode No.	Letter	Diode No.
MA	MA151A	MI	MA152K
MB	MA152A	MK	MA28W-B
MC	MA153	ML	MA28T-A
MD	MA28-A	MN	MA151WA
ME	MA28-B	MO	MA152WA
MF	MA28W-A	MT	MA151WK
MH	MA151K	MU	MA152WK

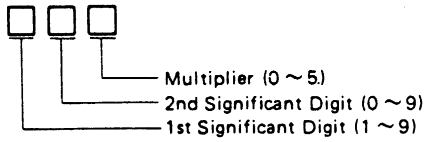
Appearance and Symbols


3
2
1
Anode
Cathode

	1	2	3
MA28/28W/28T	–	Anode	Cathode
MA151K/152K	–	Anode	Cathode
MA151A/152A	–	Cathode	Anode
MA151WK/MA152WK	Anode	Anode	Cathode
MA151WA/MA152WA	Cathode	Cathode	Anode
MA153	Cathode	Anode	Common

3. Chip Resistor

The resistor value is indicated on the bottom surface of the chip resistor using three digit numbers.


Multiplier (0 ~ 5)
2nd Significant Digit (0 ~ 9)
1st Significant Digit (1 ~ 9)

EXAMPLE:

330 ⟶ $33 \times 10^0 = 33$ ohms
561 ⟶ $56 \times 10^1 = 560$ ohms
123 ⟶ $12 \times 10^3 = 12$ kohms

Note: Zero ohm resistor (jumper chip) is colored red or green.

4. Chip Capacitor

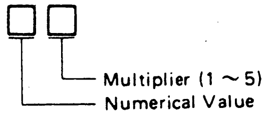
The capacitive value of replacement chip capacitors is indicated on the bottom surface. Original parts do not have value indication.

If the capacitive value is less than 100 pF, the value will be indicated by one or two digit number expressing the capacity directly in pF.

EXAMPLE:

0.5 ⟶ 0.5 pF 2.5 ⟶ 2.5 pF
75 ⟶ 0.75 pF 33 ⟶ 33 pF
1 ⟶ 1 pF 82 ⟶ 82 pF

If the capacitive value is 100 pF or greater, the value will be indicated by an alpha-numeric code. The letter precedes the number and expresses a numerical value to be multiplied by the number which follows.


Multiplier (1 ~ 5)
Numerical Value

Numerical Value

Letter	Value	Letter	Value
A	10	N	33
B	11	P	36
C	12	Q	39
D	13	R	43
E	15	S	47
F	16	T	51
G	18	U	56
H	20	V	62
J	22	W	68
K	24	X	75
L	27	Y	82
M	30	Z	91

• Letters I and O are not used

EXAMPLE:

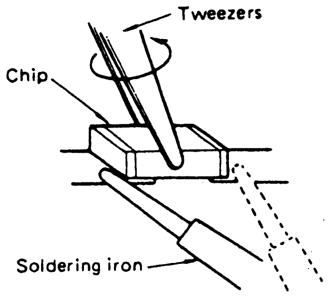
A1 ⟶ $10 \times 10^1 = 100$ pF
N2 ⟶ $33 \times 10^2 = 3300$ pF
S3 ⟶ $47 \times 10^3 = 47000$ pF

5. Precautions in replacing the chip component

1. Make sure that the unit is turned OFF when replacing the chip.
2. Use tweezers to prevent any damage to the chip surface.
3. Do not re-use the chips after removal.
4. Do not rub the electrode of chips.
5. Do not subject the chips to excessive stress.
6. It is recommended that a pencil-type soldering iron to be used.
7. The solder whose diameter is less than 0.5 mm is recommended.
8. Do not heat the chip beyond 3 seconds.
9. Maintain temperature control under 260°C (500°F) when soldering.

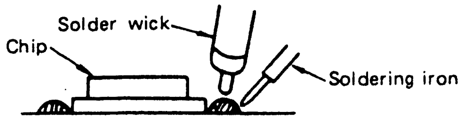
5-1 Removal (Transistor, Diode, Resistor and Capacitor)

1. Add the solder to both ends of the chip (three leads for chip transistor).
2. While attaching the soldering iron to both ends of the chip (three leads for chip transistor) as shown below, remove the chip by turning it with tweezers.
   Note Be careful not to damage other chips.

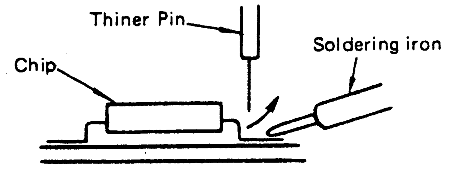

Tweezers
Chip
Soldering iron

5-2 Removal (IC)

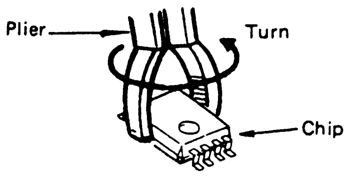
1. Add the solder wick and solder iron to each lead of the IC and remove solder.


Solder wick
Chip
Soldering iron

2. Add the solder iron to each lead of the IC and left each lead of the IC using thiner pin.

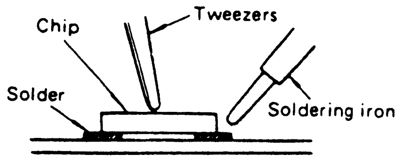

Thiner Pin
Soldering iron
Chip

3. Remove IC turning it with plier.

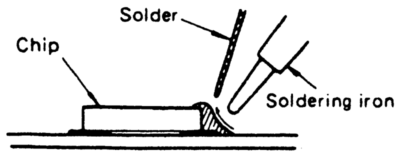

Plier
Turn
Chip

5-3 Mounting

1. Place the solder thinly on the chip mounting foil.
2. Solder the chip temporarily while holding the chip with the tweezers.


Chip
Tweezers
Solder
Soldering iron

3. Solder both ends of chip (three leads for chip transistor).


Solder
Chip
Soldering iron

each lead of

dering iron

e IC and left

g iron

iting foil.

ding the

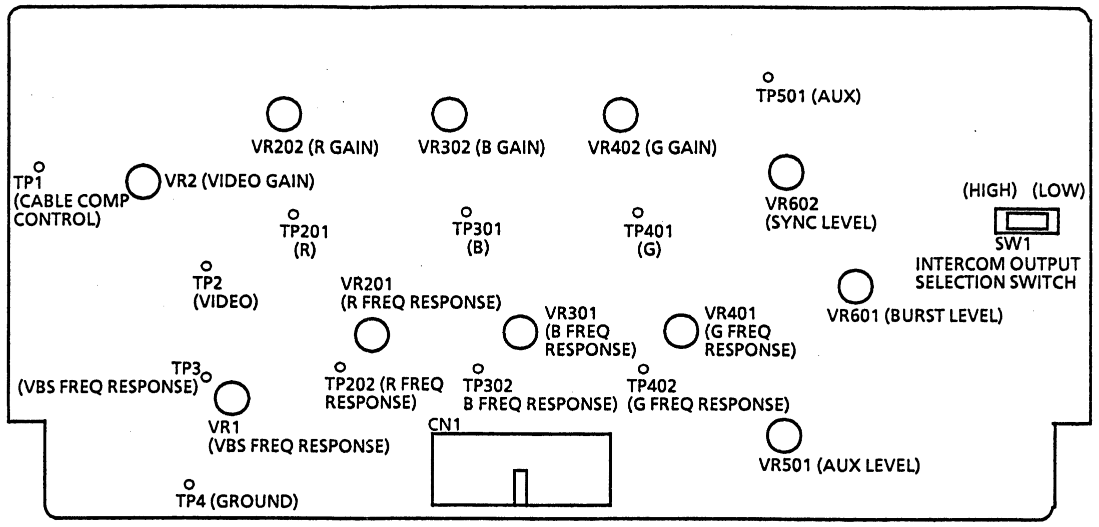
ing iron

ads for

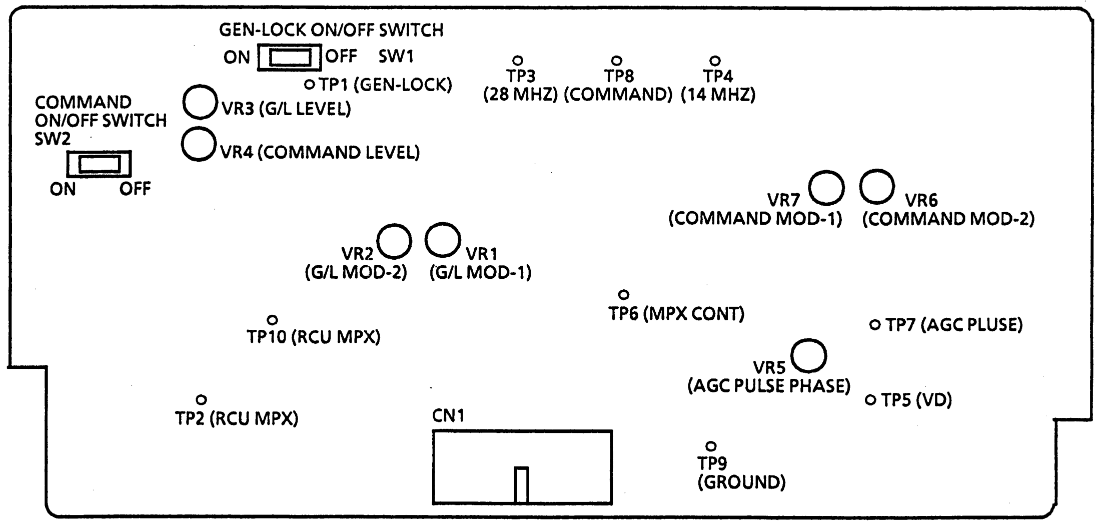
iron

6. Location of Test points and Adjusting controls

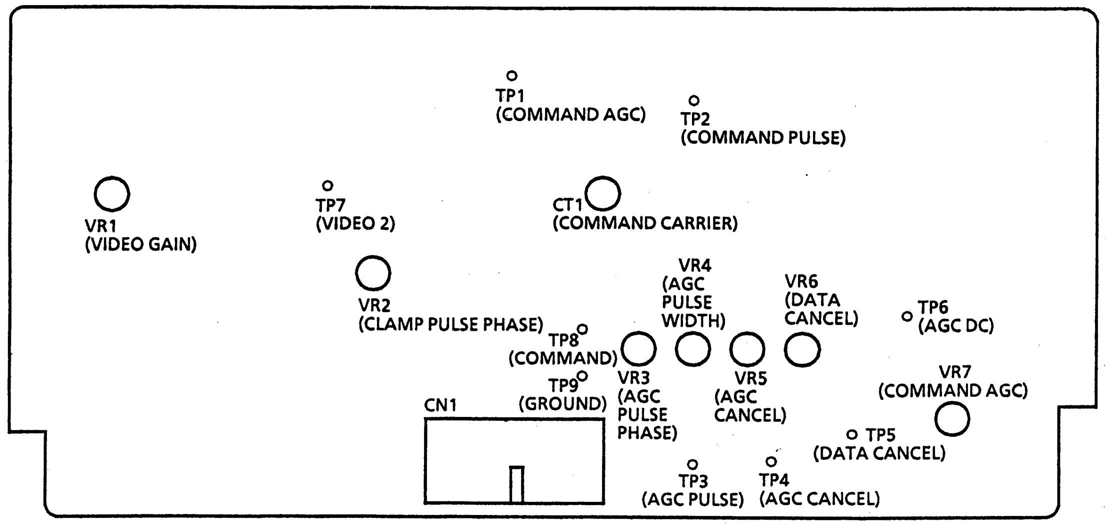
VIDEO BOARD


TP501 (AUX)
VR202 (R GAIN)
VR302 (B GAIN)
VR402 (G GAIN)
TP1 (CABLE COMP CONTROL)
VR2 (VIDEO GAIN)
VR602 (SYNC LEVEL)
(HIGH) (LOW)
SW1 INTERCOM OUTPUT SELECTION SWITCH
TP201 (R)
TP301 (B)
TP401 (G)
TP2 (VIDEO)
VR201 (R FREQ RESPONSE)
VR301 (B FREQ RESPONSE)
VR401 (G FREQ RESPONSE)
VR601 (BURST LEVEL)
TP3 (VBS FREQ RESPONSE)
VR1 (VBS FREQ RESPONSE)
TP202 (R FREQ RESPONSE)
TP302 B FREQ RESPONSE)
TP402 (G FREQ RESPONSE)
CN1
VR501 (AUX LEVEL)
TP4 (GROUND)

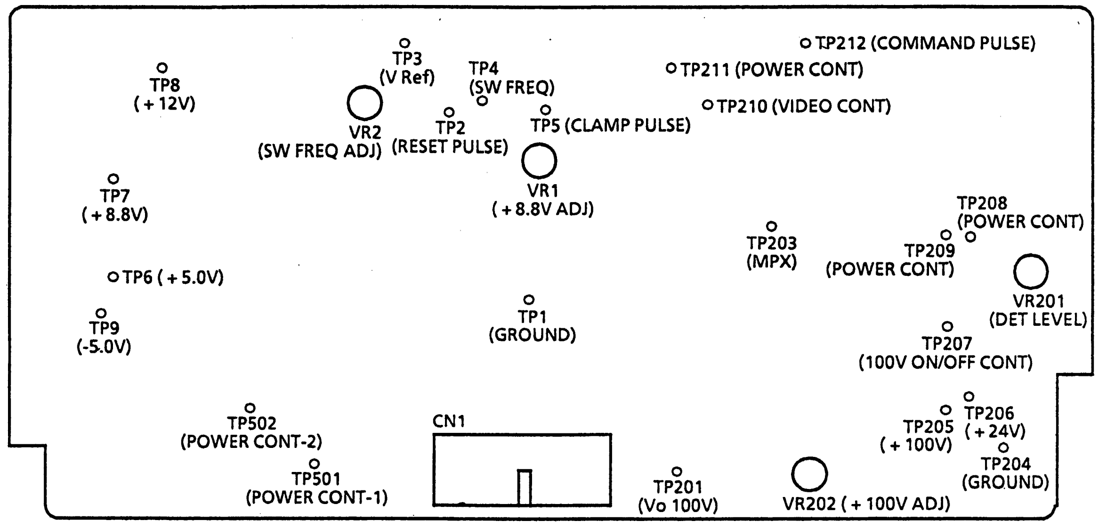
MODULATOR BOARD


GEN-LOCK ON/OFF SWITCH
ON OFF SW1
TP1 (GEN-LOCK)
TP3 (28 MHZ)
TP8 (COMMAND)
TP4 (14 MHZ)
COMMAND ON/OFF SWITCH SW2
ON OFF
VR3 (G/L LEVEL)
VR4 (COMMAND LEVEL)
VR7 (COMMAND MOD-1)
VR6 (COMMAND MOD-2)
VR2 (G/L MOD-2)
VR1 (G/L MOD-1)
TP6 (MPX CONT)
TP10 (RCU MPX)
TP7 (AGC PLUSE)
VR5 (AGC PULSE PHASE)
TP5 (VD)
TP2 (RCU MPX)
CN1
TP9 (GROUND)

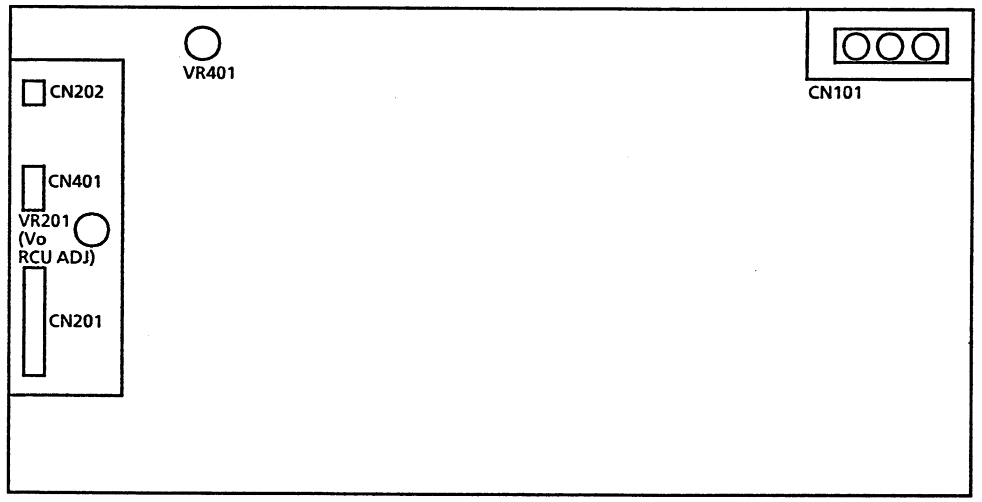
DEMODULATOR BOARD


TP1 (COMMAND AGC)
TP2 (COMMAND PULSE)
VR1 (VIDEO GAIN)
TP7 (VIDEO 2)
CT1 (COMMAND CARRIER)
VR2 (CLAMP PULSE PHASE)
VR4 (AGC PULSE WIDTH)
VR6 (DATA CANCEL)
TP6 (AGC DC)
TP8 (COMMAND)
TP9 (GROUND)
VR3 (AGC PULSE PHASE)
VR5 (AGC CANCEL)
VR7 (COMMAND AGC)
CN1
TP5 (DATA CANCEL)
TP3 (AGC PULSE)
TP4 (AGC CANCEL)

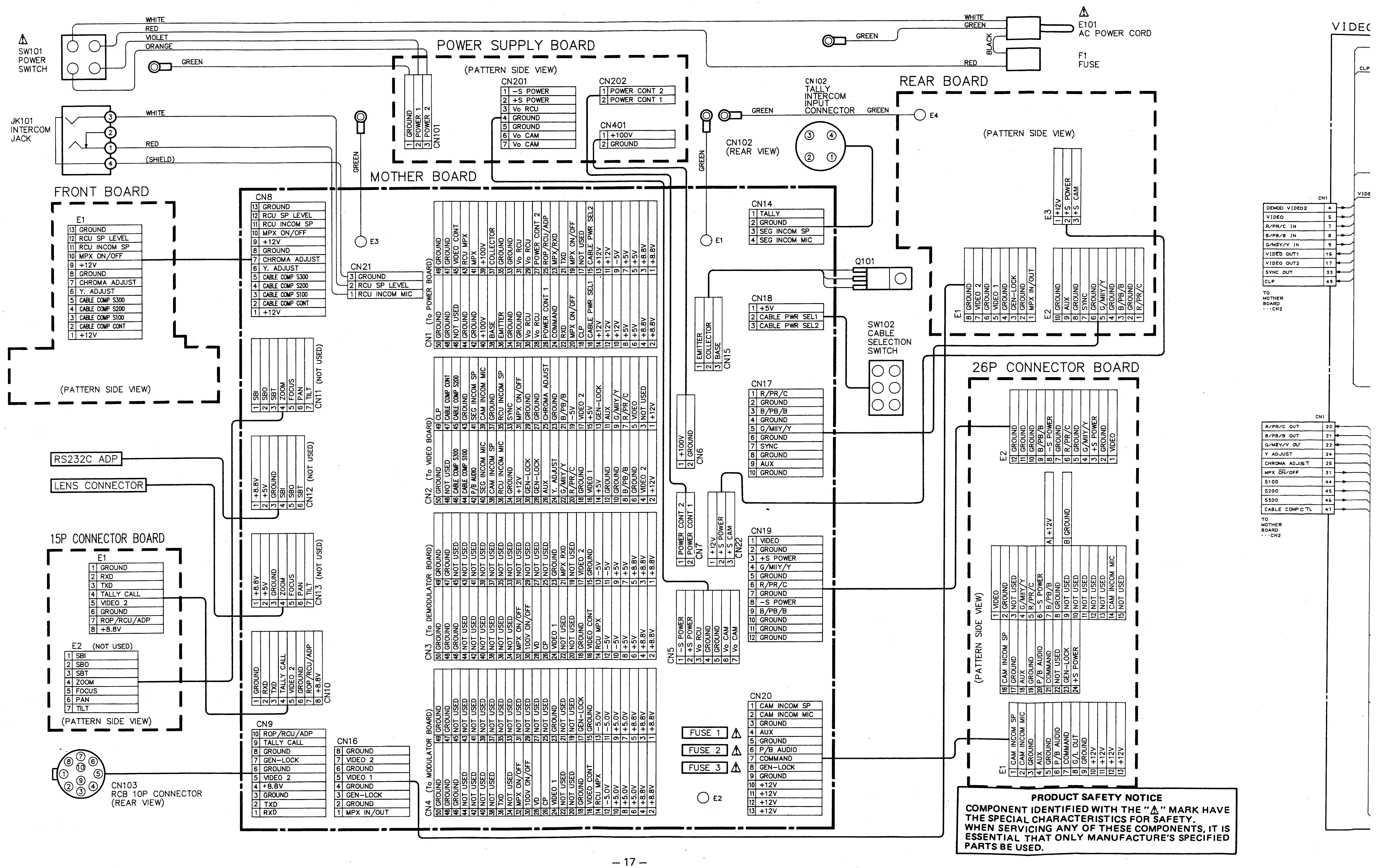
POWER BOARD


TP3 (V Ref)
TP4 (SW FREQ)
TP212 (COMMAND PULSE)
TP211 (POWER CONT)
TP8 (+12V)
TP210 (VIDEO CONT)
VR2 (SW FREQ ADJ)
TP2 (RESET PULSE)
TP5 (CLAMP PULSE)
VR1 (+8.8V ADJ)
TP7 (+8.8V)
TP208 (POWER CONT)
TP203 (MPX)
TP209 (POWER CONT)
VR201 (DET LEVEL)
TP6 (+5.0V)
TP1 (GROUND)
TP9 (-5.0V)
TP207 (100V ON/OFF CONT)
TP206 (+24V)
TP205 (+100V)
TP502 (POWER CONT-2)
CN1
TP204 (GROUND)
TP501 (POWER CONT-1)
TP201 (Vo 100V)
VR202 (+100V ADJ)

POWER SUPPLY BOARD


VR401
CN101
CN202
CN401
VR201 (Vo RCU ADJ)
CN201

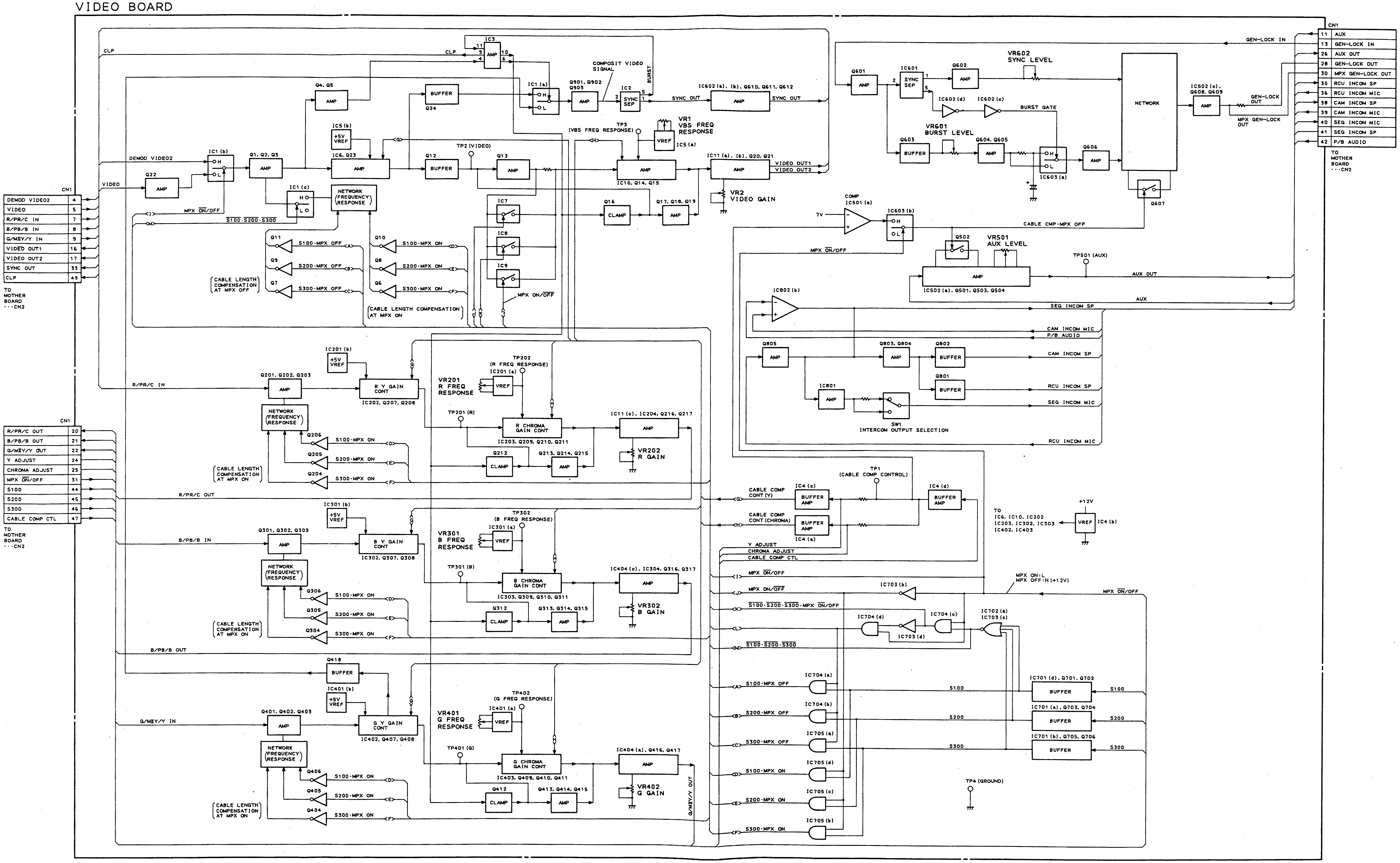
WIRING DIAGRAM OF REMOTE CONTROL UNIT WV-RC700


SW101 POWER SWITCH
WHITE
RED
VIOLET
ORANGE
GREEN
E101 AC POWER CORD
F1 FUSE
BLACK
JK101 INTERCOM JACK
(SHIELD)
POWER SUPPLY BOARD
(PATTERN SIDE VIEW)
CN101: 1 GROUND, 2 POWER 1, 3 POWER 2
CN201: 1 –S POWER, 2 +S POWER, 3 Vo RCU, 4 GROUND, 5 GROUND, 6 Vo CAM, 7 Vo CAM
CN202: 1 POWER CONT 2, 2 POWER CONT 1
CN401: 1 +100V, 2 GROUND
CN102 TALLY INTERCOM INPUT CONNECTOR
CN102 (REAR VIEW)
REAR BOARD
E4
E3: 1 +12V, 2 +S POWER, 3 +S CAM
E1: 8 GROUND, 7 VIDEO 2, 6 GROUND, 5 VIDEO 1, 4 GROUND, 3 GEN-LOCK, 2 GROUND, 1 MPX IN/OUT
E2: 10 GROUND, 9 AUX, 8 GROUND, 7 SYNC, 6 GROUND, 5 G/MIIY/Y, 4 GROUND, 3 B/PB/B, 2 GROUND, 1 R/PR/C
FRONT BOARD
E1: 13 GROUND, 12 RCU SP LEVEL, 11 RCU INCOM SP, 10 MPX ON/OFF, 9 +12V, 8 GROUND, 7 CHROMA ADJUST, 6 Y. ADJUST, 5 CABLE COMP S300, 4 CABLE COMP S200, 3 CABLE COMP S100, 2 CABLE COMP CONT, 1 +12V
MOTHER BOARD
CN8: 13 GROUND, 12 RCU SP LEVEL, 11 RCU INCOM SP, 10 MPX ON/OFF, 9 +12V, 8 GROUND, 7 CHROMA ADJUST, 6 Y. ADJUST, 5 CABLE COMP S300, 4 CABLE COMP S200, 3 CABLE COMP S100, 2 CABLE COMP CONT, 1 +12V
CN21: 3 GROUND, 2 RCU SP LEVEL, 1 RCU INCOM MIC
E3
E1
E2
CN1 (To POWER BOARD)
CN2 (To VIDEO BOARD)
CN3 (To DEMODULATOR BOARD)
CN4 (To MODULATOR BOARD)
CN11 (NOT USED): 1 SBI, 2 SBO, 3 SBT, 4 ZOOM, 5 FOCUS, 6 PAN, 7 TILT
CN12 (NOT USED): 1 +8.8V, 2 +5V, 3 GROUND, 4 SBI, 5 SBO, 6 SBT
CN13 (NOT USED): 1 +8.8V, 2 +5V, 3 GROUND, 4 ZOOM, 5 FOCUS, 6 PAN, 7 TILT
CN10: 1 GROUND, 2 RXD, 3 TXD, 4 TALLY CALL, 5 VIDEO 2, 6 GROUND, 7 ROP/RCU/ADP, 8 +8.8V
CN9: 10 ROP/RCU/ADP, 9 TALLY CALL, 8 GROUND, 7 GEN-LOCK, 6 GROUND, 5 VIDEO 2, 4 +8.8V, 3 GROUND, 2 TXD, 1 RXD
CN16: 8 GROUND, 7 VIDEO 2, 6 GROUND, 5 VIDEO 1, 4 GROUND, 3 GEN-LOCK, 2 GROUND, 1 MPX IN/OUT
CN14: 1 TALLY, 2 GROUND, 3 SEG INCOM SP, 4 SEG INCOM MIC
Q101
CN15: 1 EMITTER, 2 COLLECTOR, 3 BASE
CN18: 1 +5V, 2 CABLE PWR SEL1, 3 CABLE PWR SEL2
SW102 CABLE SELECTION SWITCH
CN17: 1 R/PR/C, 2 GROUND, 3 B/PB/B, 4 GROUND, 5 G/MIIY/Y, 6 GROUND, 7 SYNC, 8 GROUND, 9 AUX, 10 GROUND
CN6: 1 +100V, 2 GROUND
CN7: 1 POWER CONT 2, 2 POWER CONT 1
CN22: 1 +12V, 2 +S POWER, 3 +S CAM
CN19: 1 VIDEO, 2 GROUND, 3 +S POWER, 4 G/MIIY/Y, 5 GROUND, 6 R/PR/C, 7 GROUND, 8 –S POWER, 9 B/PB/B, 10 GROUND, 11 GROUND, 12 GROUND
CN5: 1 –S POWER, 2 +S POWER, 3 Vo RCU, 4 GROUND, 5 GROUND, 6 Vo CAM, 7 Vo CAM
CN20: 1 CAM INCOM SP, 2 CAM INCOM MIC, 3 GROUND, 4 AUX, 5 GROUND, 6 P/B AUDIO, 7 COMMAND, 8 GEN-LOCK, 9 GROUND, 10 +12V, 11 +12V, 12 +12V, 13 +12V
FUSE 1
FUSE 2
FUSE 3
RS232C ADP
LENS CONNECTOR
15P CONNECTOR BOARD
E1: 1 GROUND, 2 RXD, 3 TXD, 4 TALLY CALL, 5 VIDEO 2, 6 GROUND, 7 ROP/RCU/ADP, 8 +8.8V
E2 (NOT USED): 1 SBI, 2 SBO, 3 SBT, 4 ZOOM, 5 FOCUS, 6 PAN, 7 TILT
(PATTERN SIDE VIEW)
CN103 RCB 10P CONNECTOR (REAR VIEW)
26P CONNECTOR BOARD
E2: 12 GROUND, 11 GROUND, 10 GROUND, 9 B/PB/B, 8 –S POWER, 7 GROUND, 6 R/PR/C, 5 GROUND, 4 G/MIIY/Y, 3 +S POWER, 2 GROUND, 1 VIDEO
A +12V
B GROUND
1 VIDEO, 2 GROUND, 3 NOT USED, 4 G/MIIY/Y, 5 R/PR/C, 6 –S POWER, 7 B/PB/B, 8 GROUND, 9 GROUND, 10 NOT USED, 11 NOT USED, 12 NOT USED, 13 NOT USED, 14 CAM INCOM MIC, 15 NOT USED
16 CAM INCOM SP, 17 GROUND, 18 AUX, 19 GROUND, 20 P/B AUDIO, 21 COMMAND, 22 NOT USED, 23 GEN-LOCK, 24 +S POWER
E1: 1 CAM INCOM SP, 2 CAM INCOM MIC, 3 GROUND, 4 AUX, 5 GROUND, 6 P/B AUDIO, 7 COMMAND, 8 G/L OUT, 9 GROUND, 10 +12V, 11 +12V, 12 +12V, 13 +12V
VIDE
CN1: DEMOD VIDEO2 4, VIDEO 5, R/PR/C IN 7, B/PB/B IN 8, G/MIIY/Y IN 9, VIDEO OUT1 16, VIDEO OUT2 17, SYNC OUT 33, CLP 49
TO MOTHER BOARD ···CN2
CN1: R/PR/C OUT 20, B/PB/B OUT 21, G/MIIY/Y OUT 22, Y ADJUST 24, CHROMA ADJUST 25, MPX ON/OFF 31, S100 44, S200 45, S300 46, CABLE COMP CTL 47
TO MOTHER BOARD ···CN2

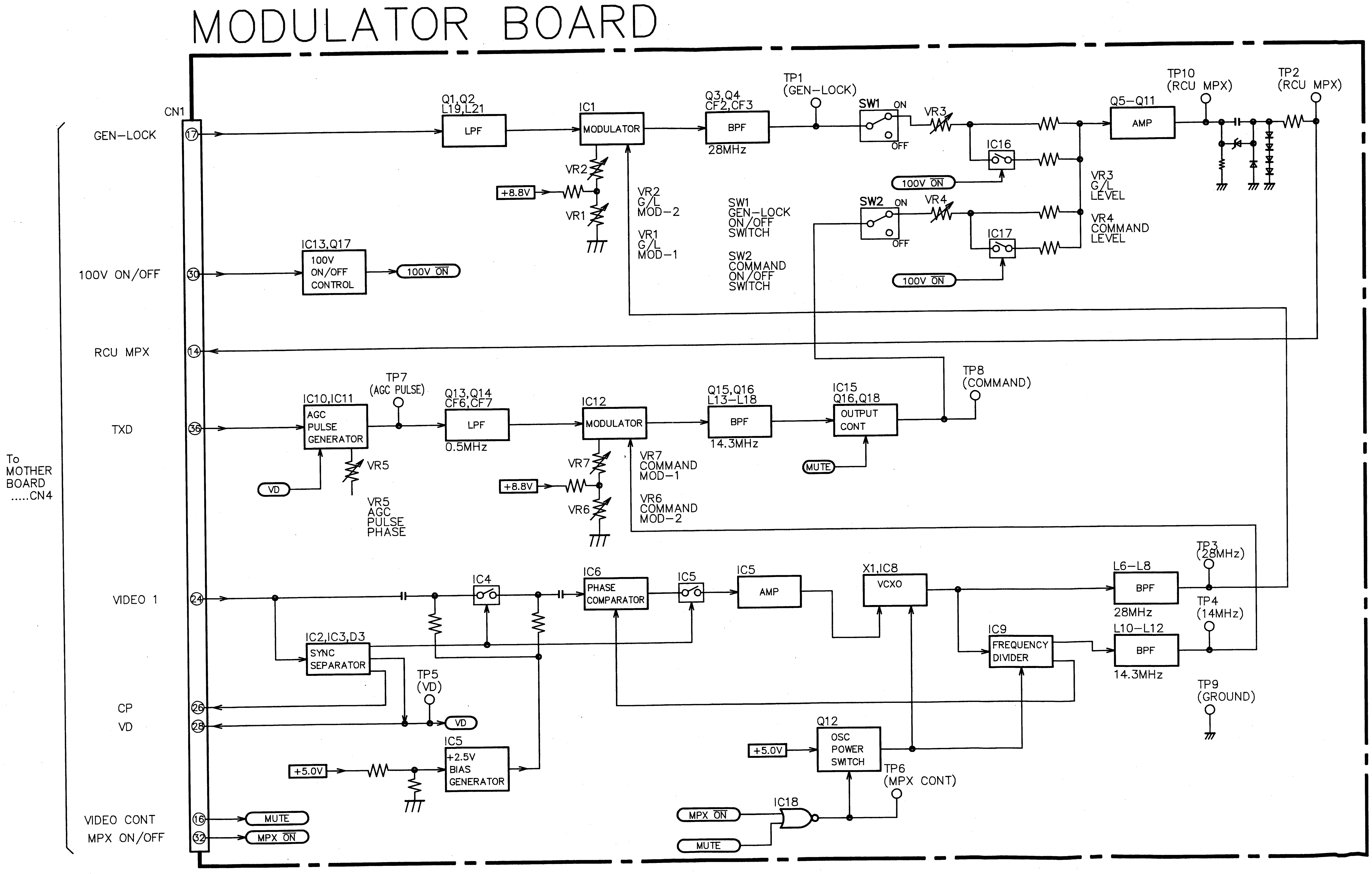
PRODUCT SAFETY NOTICE

COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

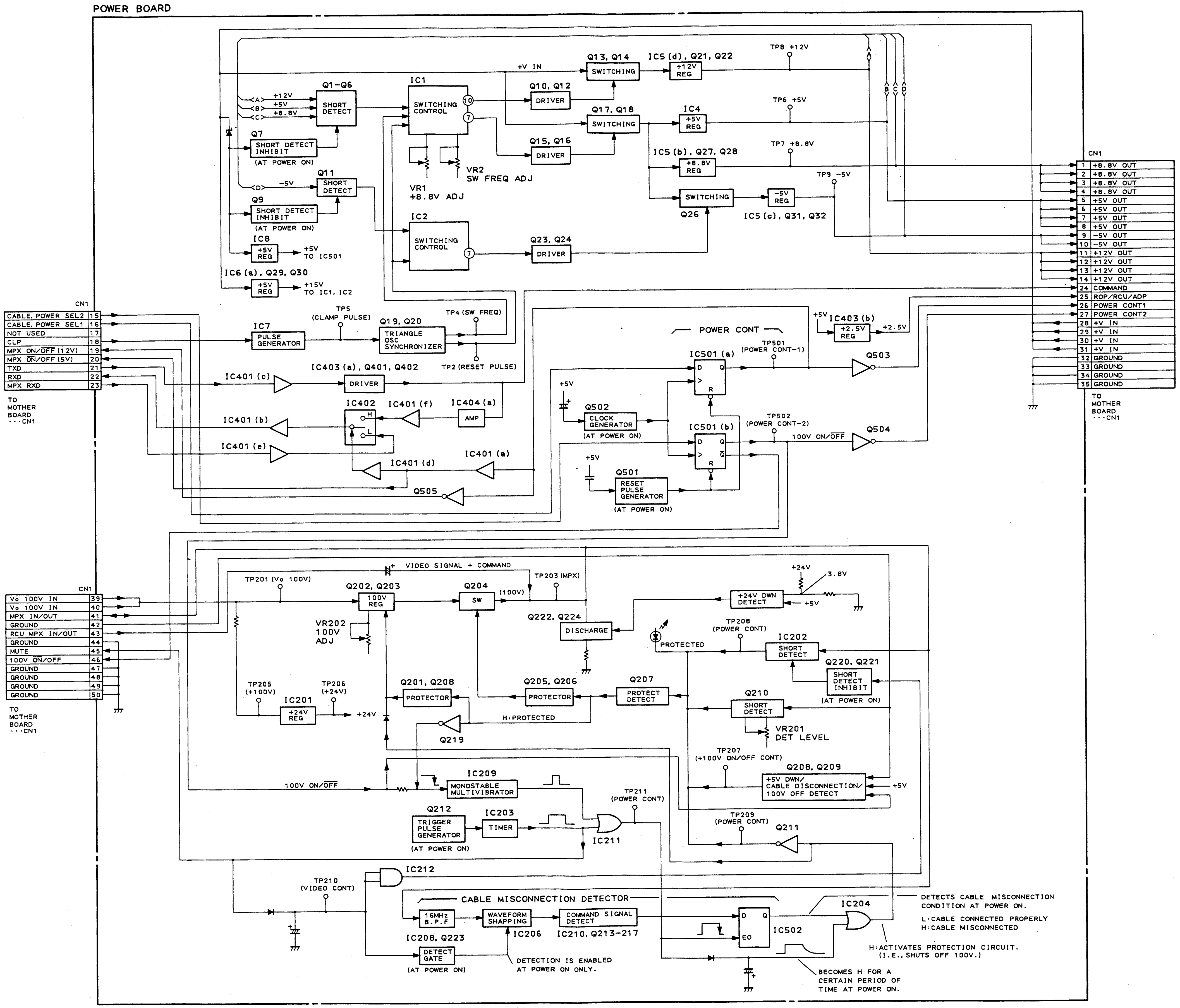
BLOCK DIAGRAM OF VIDEO BOARD


VIDEO BOARD
CN1
DEMOD VIDEO2 4
VIDEO 5
R/PR/C IN 7
B/PB/B IN 8
G/MEY/Y IN 9
VIDEO OUT1 16
VIDEO OUT2 17
SYNC OUT 33
CLP 49
TO MOTHER BOARD ···CN2
R/PR/C OUT 20
B/PB/B OUT 21
G/MEY/Y OUT 22
Y ADJUST 24
CHROMA ADJUST 25
MPX ON/OFF 31
S100 44
S200 45
S300 46
CABLE COMP CTL 47
CLP
IC3
AMP
Q4, Q5
AMP
BUFFER
Q24
IC1 (a)
Q901, Q902 Q903
AMP
COMPOSIT VIDEO SIGNAL
IC2
SYNC SEP
BURST
SYNC OUT
IC602 (a), (b), Q610, Q611, Q612
DEMOD VIDEO2
IC1 (b)
Q1, Q2, Q3
AMP
IC5 (b)
+5V VREF
IC6, Q23
Q12
BUFFER
TP2 (VIDEO)
Q13
TP3 (VBS FREQ RESPONSE)
VR1 VBS FREQ RESPONSE
IC5 (a)
IC10, Q14, Q15
IC11 (a), (b), Q20, Q21
VIDEO OUT1
VIDEO OUT2
VR2 VIDEO GAIN
VIDEO
Q22
IC1 (c)
NETWORK (FREQUENCY RESPONSE)
IC7
IC8
IC9
Q16
CLAMP
Q17, Q18, Q19
MPX ON/OFF
S100·S200·S300
Q11
S100·MPX OFF
Q9
S200·MPX OFF
Q7
S300·MPX OFF
Q10
S100·MPX ON
Q8
S200·MPX ON
Q6
S300·MPX ON
CABLE LENGTH COMPENSATION AT MPX OFF
CABLE LENGTH COMPENSATION AT MPX ON
IC201 (b)
+5V VREF
Q201, Q202, Q203
R/PR/C IN
R Y GAIN CONT
IC202, Q207, Q208
TP202 (R FREQ RESPONSE)
IC201 (a)
VR201 R FREQ RESPONSE
TP201 (R)
R CHROMA GAIN CONT
IC203, Q209, Q210, Q211
IC11 (c), IC204, Q216, Q217
Q212
Q213, Q214, Q215
VR202 R GAIN
Q206
Q205
Q204
S100·MPX ON
S200·MPX ON
S300·MPX ON
R/PR/C OUT
IC301 (b)
Q301, Q302, Q303
B/PB/B IN
B Y GAIN CONT
IC302, Q307, Q308
TP302 (B FREQ RESPONSE)
IC301 (a)
VR301 B FREQ RESPONSE
TP301 (B)
B CHROMA GAIN CONT
IC303, Q309, Q310, Q311
IC404 (c), IC304, Q316, Q317
Q312
Q313, Q314, Q315
VR302 B GAIN
Q306
Q305
Q304
B/PB/B OUT
Q418
BUFFER
IC401 (b)
Q401, Q402, Q403
G/MEY/Y IN
G Y GAIN CONT
IC402, Q407, Q408
TP402 (G FREQ RESPONSE)
IC401 (a)
VR401 G FREQ RESPONSE
TP401 (G)
G CHROMA GAIN CONT
IC403, Q409, Q410, Q411
IC404 (a), Q416, Q417
Q412
Q413, Q414, Q415
VR402 G GAIN
G/MEY/Y OUT
Q406
Q405
Q404
Q601
IC601
SYNC SEP
Q602
VR602 SYNC LEVEL
IC602 (d)
IC602 (c)
BURST GATE
Q603
VR601 BURST LEVEL
Q604, Q605
IC603 (a)
Q606
NETWORK
Q607
IC502 (c), Q608, Q609
GEN-LOCK OUT
MPX GEN-LOCK OUT
GEN-LOCK IN
CN1
11 AUX
13 GEN-LOCK IN
26 AUX OUT
28 GEN-LOCK OUT
30 MPX GEN-LOCK OUT
35 RCU INCOM SP
36 RCU INCOM MIC
38 CAM INCOM SP
39 CAM INCOM MIC
40 SEG INCOM MIC
41 SEG INCOM SP
42 P/B AUDIO
TO MOTHER BOARD ···CN2
COMP IC501 (a)
7V
IC603 (b)
CABLE CMP·MPX OFF
MPX ON/OFF
Q502
VR501 AUX LEVEL
TP501 (AUX)
AUX OUT
IC502 (a), Q501, Q503, Q504
AUX
IC802 (b)
SEG INCOM SP
CAM INCOM MIC
P/B AUDIO
Q805
Q803, Q804
Q802
CAM INCOM SP
Q801
RCU INCOM SP
IC801
SEG INCOM MIC
SW1 INTERCOM OUTPUT SELECTION
RCU INCOM MIC
TP1 (CABLE COMP CONTROL)
CABLE COMP CONT (Y)
IC4 (c)
BUFFER AMP
IC4 (d)
CABLE COMP CONT (CHROMA)
IC4 (a)
+12V
VREF
IC4 (b)
TO IC6, IC10, IC202 IC203, IC302, IC303 IC402, IC403
Y ADJUST
CHROMA ADJUST
CABLE COMP CTL
MPX ON/OFF
MPX ON: L MPX OFF: H (+12V)
IC703 (b)
S100·S200·S300·MPX ON/OFF
IC704 (d)
IC704 (c)
IC703 (d)
IC702 (a) IC703 (c)
S100·S200·S300
IC704 (a)
S100·MPX OFF
IC704 (b)
S200·MPX OFF
IC705 (a)
S300·MPX OFF
IC705 (d)
S100·MPX ON
IC705 (c)
S200·MPX ON
IC705 (b)
S300·MPX ON
IC701 (d), Q701, Q702
BUFFER
S100
IC701 (a), Q703, Q704
S200
IC701 (b), Q705, Q706
S300
TP4 (GROUND)

BLOCK DIAGRAM OF MODULATOR BOARD

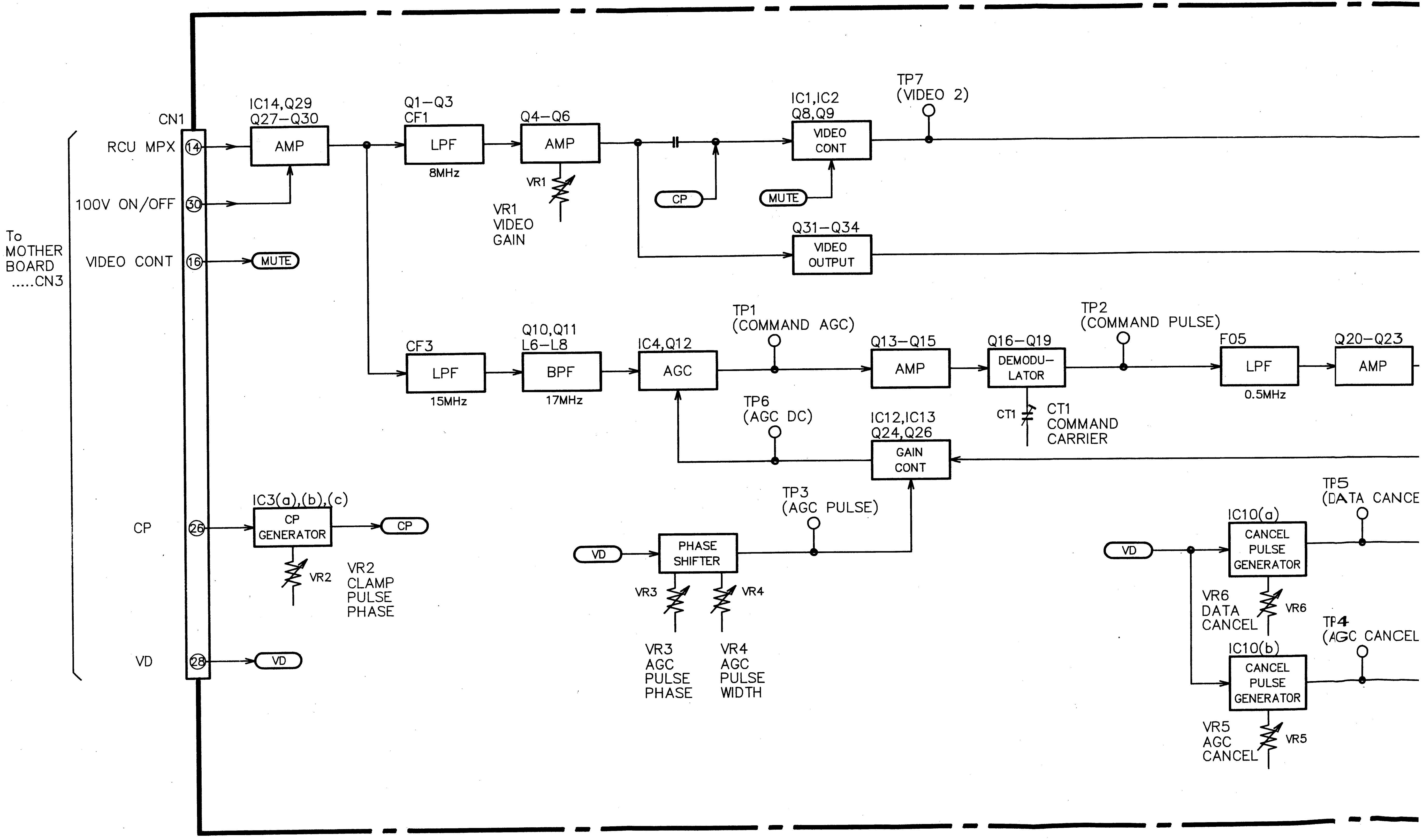

MODULATOR BOARD
CN1
GEN-LOCK
17
100V ON/OFF
30
RCU MPX
14
TXD
36
To
MOTHER
BOARD
.....CN4
VIDEO 1
24
CP
26
VD
28
VIDEO CONT
16
MPX ON/OFF
32
Q1,Q2
L19,L21
LPF
IC1
MODULATOR
VR2
+8.8V
VR1
VR2
G/L
MOD-2
VR1
G/L
MOD-1
Q3,Q4
CF2,CF3
BPF
28MHz
TP1
(GEN-LOCK)
SW1
ON
OFF
VR3
IC16
100V ON
SW2
ON
OFF
VR4
IC17
100V ON
SW1
GEN-LOCK
ON/OFF
SWITCH
SW2
COMMAND
ON/OFF
SWITCH
VR3
G/L
LEVEL
VR4
COMMAND
LEVEL
Q5-Q11
AMP
TP10
(RCU MPX)
TP2
(RCU MPX)
IC13,Q17
100V
ON/OFF
CONTROL
100V ON
IC10,IC11
AGC
PULSE
GENERATOR
TP7
(AGC PULSE)
VR5
VD
VR5
AGC
PULSE
PHASE
Q13,Q14
CF6,CF7
LPF
0.5MHz
IC12
MODULATOR
VR7
+8.8V
VR6
VR7
COMMAND
MOD-1
VR6
COMMAND
MOD-2
Q15,Q16
L13-L18
BPF
14.3MHz
IC15
Q16,Q18
OUTPUT
CONT
MUTE
TP8
(COMMAND)
IC4
IC6
PHASE
COMPARATOR
IC5
IC5
AMP
X1,IC8
VCXO
L6-L8
BPF
28MHz
TP3
(28MHz)
TP4
(14MHz)
IC9
FREQUENCY
DIVIDER
L10-L12
BPF
14.3MHz
TP9
(GROUND)
IC2,IC3,D3
SYNC
SEPARATOR
TP5
(VD)
VD
IC5
+2.5V
BIAS
GENERATOR
+5.0V
Q12
OSC
POWER
SWITCH
+5.0V
TP6
(MPX CONT)
IC18
MPX ON
MUTE
MUTE
MPX ON

BLOCK DIAGRAM OF POWER BOARD


POWER BOARD
+V IN
Q13, Q14
SWITCHING
IC5 (d), Q21, Q22
+12V REG
TP8 +12V
Q1–Q6
+12V
+5V
+8.8V
<A>
<B>
<C>
<D>
SHORT DETECT
IC1
SWITCHING CONTROL
10
7
Q10, Q12
DRIVER
Q17, Q18
SWITCHING
IC4
+5V REG
TP6 +5V
Q7
SHORT DETECT INHIBIT
(AT POWER ON)
Q15, Q16
DRIVER
IC5 (b), Q27, Q28
+8.8V REG
TP7 +8.8V
VR2
SW FREQ ADJ
VR1
+8.8V ADJ
Q11
–5V
SHORT DETECT
TP9 –5V
Q9
SHORT DETECT INHIBIT
(AT POWER ON)
SWITCHING
Q26
–5V REG
IC5 (c), Q31, Q32
IC2
SWITCHING CONTROL
IC8
+5V REG
+5V TO IC501
Q23, Q24
DRIVER
IC6 (a), Q29, Q30
+5V REG
+15V TO IC1, IC2
A
B
C
D
CN1
1 +8.8V OUT
2 +8.8V OUT
3 +8.8V OUT
4 +8.8V OUT
5 +5V OUT
6 +5V OUT
7 +5V OUT
8 +5V OUT
9 –5V OUT
10 –5V OUT
11 +12V OUT
12 +12V OUT
13 +12V OUT
14 +12V OUT
24 COMMAND
25 ROP/RCU/ADP
26 POWER CONT1
27 POWER CONT2
28 +V IN
29 +V IN
30 +V IN
31 +V IN
32 GROUND
33 GROUND
34 GROUND
35 GROUND
TO MOTHER BOARD ···CN1
CN1
CABLE, POWER SEL2 15
CABLE, POWER SEL1 16
NOT USED 17
CLP 18
MPX ON/OFF (12V) 19
MPX ON/OFF (5V) 20
TXD 21
RXD 22
MPX RXD 23
TO MOTHER BOARD ···CN1
TP5 (CLAMP PULSE)
IC7
PULSE GENERATOR
Q19, Q20
TRIANGLE OSC SYNCHRONIZER
TP4 (SW FREQ)
TP2 (RESET PULSE)
IC403 (a), Q401, Q402
IC401 (c)
DRIVER
IC402
IC401 (f)
IC404 (a)
AMP
H
L
IC401 (b)
IC401 (e)
IC401 (a)
IC401 (d)
Q505
POWER CONT
+5V
IC403 (b)
+2.5V REG
+2.5V
TP501 (POWER CONT–1)
IC501 (a)
D Q
R
Q503
+5V
Q502
CLOCK GENERATOR
(AT POWER ON)
TP502 (POWER CONT–2)
IC501 (b)
100V ON/OFF
Q504
+5V
Q501
RESET PULSE GENERATOR
(AT POWER ON)
CN1
Vo 100V IN 39
Vo 100V IN 40
MPX IN/OUT 41
GROUND 42
RCU MPX IN/OUT 43
GROUND 44
MUTE 45
100V ON/OFF 46
GROUND 47
GROUND 48
GROUND 49
GROUND 50
TO MOTHER BOARD ···CN1
VIDEO SIGNAL + COMMAND
TP201 (Vo 100V)
Q202, Q203
100V REG
Q204
SW
(100V)
TP203 (MPX)
+24V
3.8V
+24V DWN DETECT
+5V
VR202
100V ADJ
Q222, Q224
DISCHARGE
TP208 (POWER CONT)
PROTECTED
IC202
SHORT DETECT
Q220, Q221
SHORT DETECT INHIBIT
(AT POWER ON)
TP205 (+100V)
TP206 (+24V)
IC201
+24V REG
+24V
Q201, Q208
PROTECTOR
Q205, Q206
PROTECTOR
Q207
PROTECT DETECT
H:PROTECTED
Q210
SHORT DETECT
VR201
DET LEVEL
Q219
TP207 (+100V ON/OFF CONT)
Q208, Q209
+5V DWN/ CABLE DISCONNECTION/ 100V OFF DETECT
+5V
IC209
100V ON/OFF
MONOSTABLE MULTIVIBRATOR
TP211 (POWER CONT)
Q212
TRIGGER PULSE GENERATOR
(AT POWER ON)
IC203
TIMER
IC211
TP209 (POWER CONT)
Q211
IC212
TP210 (VIDEO CONT)
CABLE MISCONNECTION DETECTOR
16MHz B.P.F
WAVEFORM SHAPPING
IC206
COMMAND SIGNAL DETECT
IC210, Q213–217
IC208, Q223
DETECT GATE
(AT POWER ON)
DETECTION IS ENABLED AT POWER ON ONLY.
D Q
EO
IC502
IC204
DETECTS CABLE MISCONNECTION CONDITION AT POWER ON.
L:CABLE CONNECTED PROPERLY
H:CABLE MISCONNECTED
H:ACTIVATES PROTECTION CIRCUIT. (I.E., SHUTS OFF 100V.)
BECOMES H FOR A CERTAIN PERIOD OF TIME AT POWER ON.

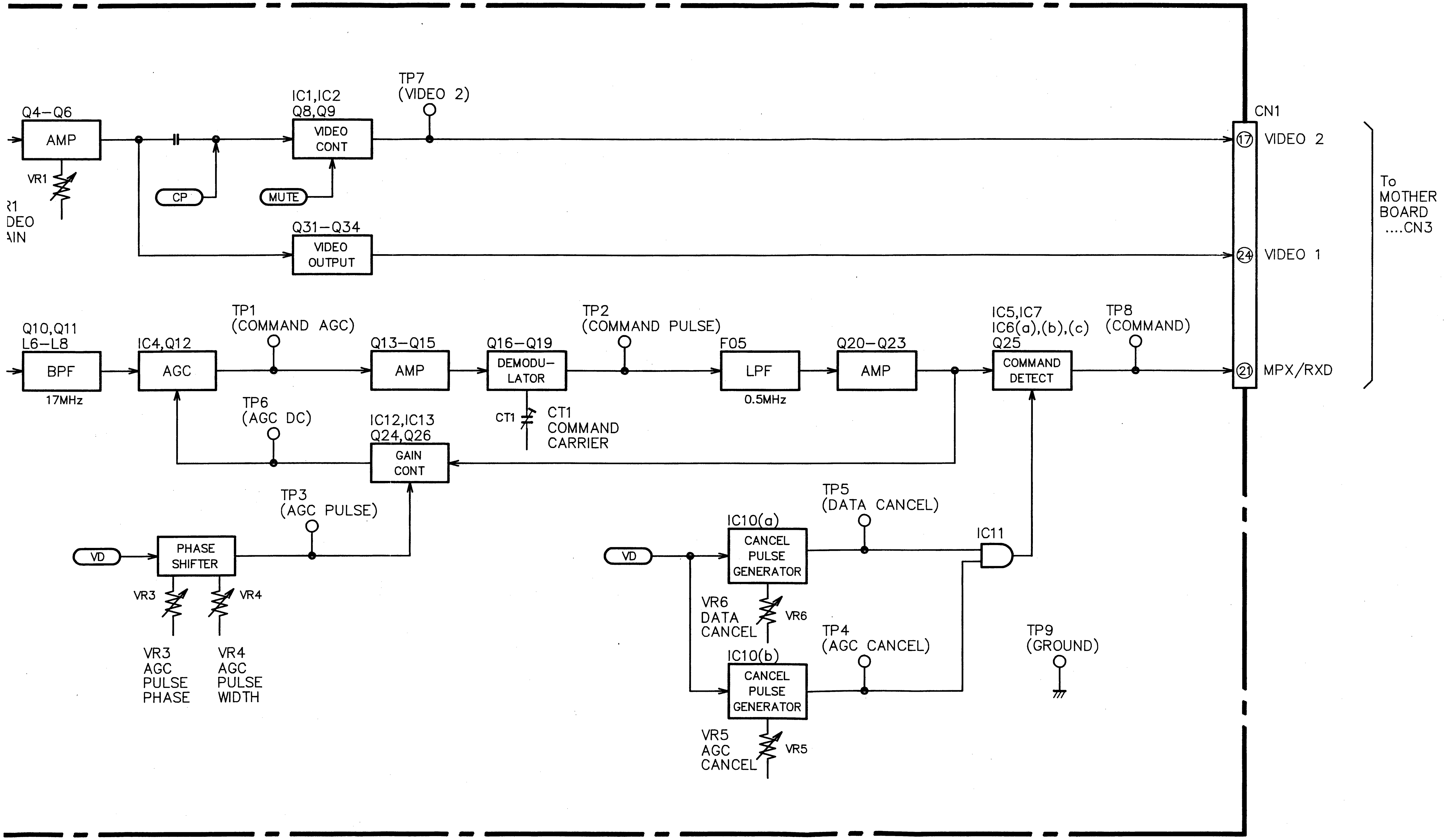
BLOCK DIAGRAM OF DEMODULATOR BOARD

DEMODULATOR BOARD

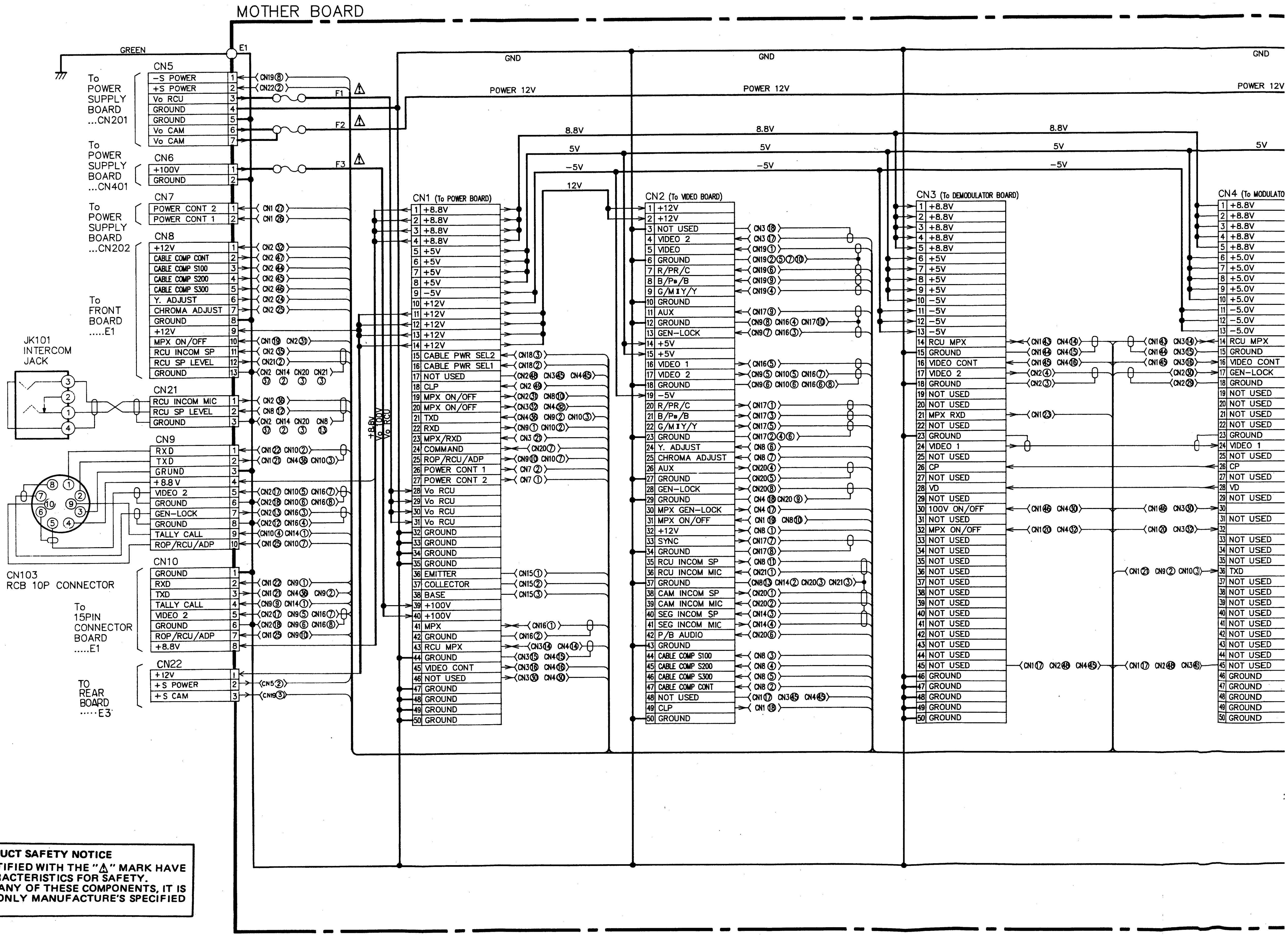

To MOTHER BOARD CN3
CN1
RCU MPX
14
100V ON/OFF
30
VIDEO CONT
16
CP
26
VD
28
IC14,Q29
Q27–Q30
AMP
MUTE
Q1–Q3
CF1
LPF
8MHz
Q4–Q6
AMP
VR1
VR1
VIDEO
GAIN
CP
MUTE
IC1,IC2
Q8,Q9
VIDEO
CONT
TP7
(VIDEO 2)
Q31–Q34
VIDEO
OUTPUT
CF3
LPF
15MHz
Q10,Q11
L6–L8
BPF
17MHz
IC4,Q12
AGC
TP1
(COMMAND AGC)
TP6
(AGC DC)
Q13–Q15
AMP
Q16–Q19
DEMODU–
LATOR
CT1
CT1
COMMAND
CARRIER
TP2
(COMMAND PULSE)
F05
LPF
0.5MHz
Q20–Q23
AMP
IC12,IC13
Q24,Q26
GAIN
CONT
IC3(a),(b),(c)
CP
GENERATOR
CP
VR2
VR2
CLAMP
PULSE
PHASE
VD
VD
PHASE
SHIFTER
VR3
VR4
VR3
AGC
PULSE
PHASE
VR4
AGC
PULSE
WIDTH
TP3
(AGC PULSE)
VD
IC10(a)
CANCEL
PULSE
GENERATOR
VR6
DATA
CANCEL
VR6
TP5
(DATA CANCE
IC10(b)
CANCEL
PULSE
GENERATOR
VR5
AGC
CANCEL
VR5
TP4
(AGC CANCEL

BLOCK DIAGRAM OF DEMODULATOR BOARD

TOR BOARD


Q4–Q6
AMP
VR1
1
DEO
AIN
CP
MUTE
IC1,IC2
Q8,Q9
VIDEO CONT
TP7
(VIDEO 2)
Q31–Q34
VIDEO OUTPUT
CN1
⑰ VIDEO 2
㉔ VIDEO 1
㉑ MPX/RXD
To MOTHER BOARD CN3
Q10,Q11
L6–L8
BPF
17MHz
IC4,Q12
AGC
TP1
(COMMAND AGC)
Q13–Q15
AMP
Q16–Q19
DEMODU–LATOR
CT1
CT1 COMMAND CARRIER
TP2
(COMMAND PULSE)
F05
LPF
0.5MHz
Q20–Q23
AMP
IC5,IC7
IC6(a),(b),(c)
Q25
COMMAND DETECT
TP8
(COMMAND)
TP6
(AGC DC)
IC12,IC13
Q24,Q26
GAIN CONT
TP3
(AGC PULSE)
VD
PHASE SHIFTER
VR3
VR4
VR3 AGC PULSE PHASE
VR4 AGC PULSE WIDTH
TP5
(DATA CANCEL)
IC10(a)
CANCEL PULSE GENERATOR
IC11
VD
VR6 DATA CANCEL
VR6
TP4
(AGC CANCEL)
IC10(b)
CANCEL PULSE GENERATOR
VR5 AGC CANCEL
VR5
TP9
(GROUND)

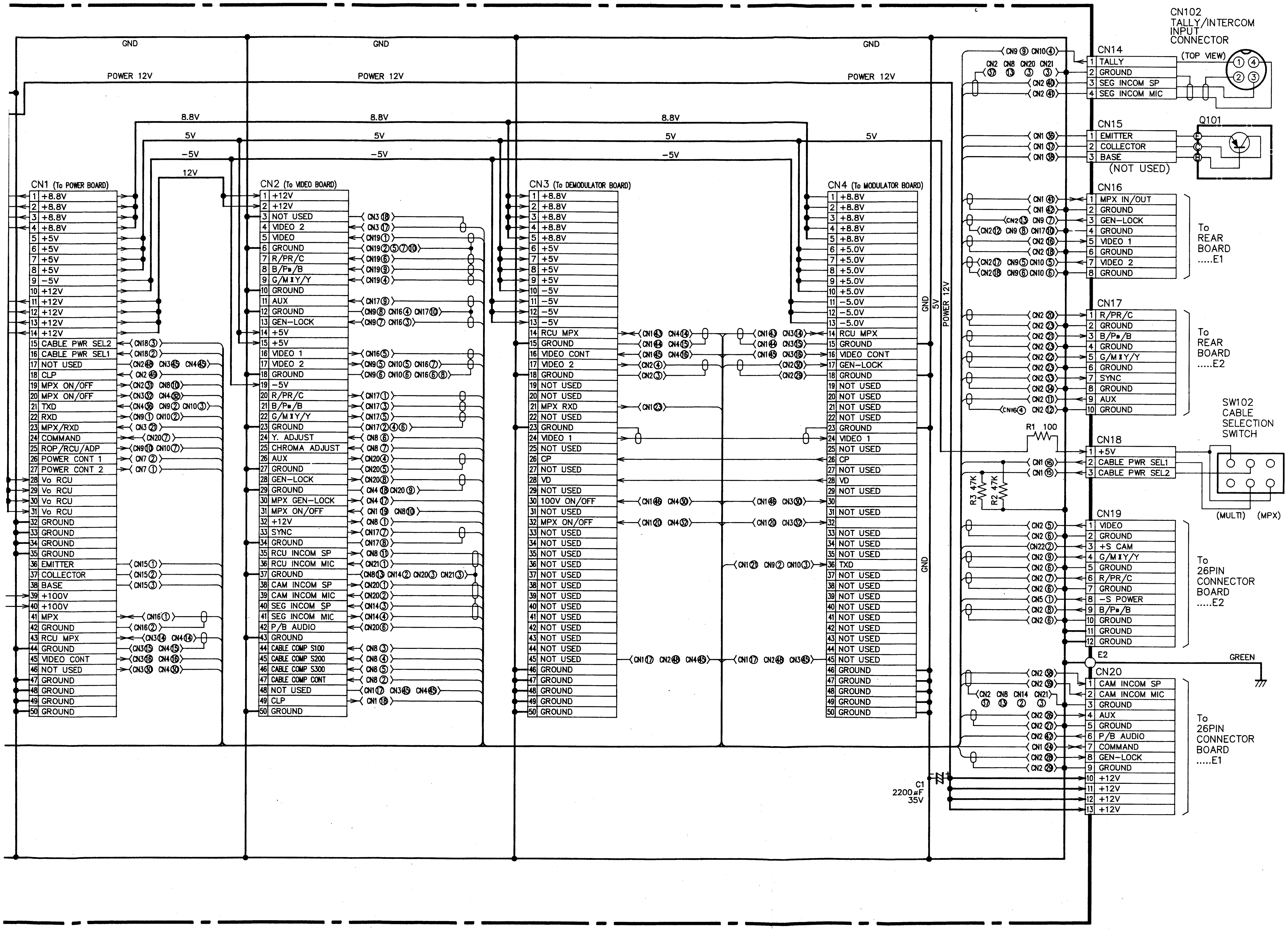
SCHEMATIC DIAGRAM OF MOTHER BOARD


MOTHER BOARD
GREEN
E1
GND
POWER 12V
8.8V
5V
-5V
12V
F1
F2
F3
To POWER SUPPLY BOARD ...CN201
CN5
1 -S POWER
2 +S POWER
3 Vo RCU
4 GROUND
5 GROUND
6 Vo CAM
7 Vo CAM
To POWER SUPPLY BOARD ...CN401
CN6
1 +100V
2 GROUND
To POWER SUPPLY BOARD ...CN202
CN7
1 POWER CONT 2
2 POWER CONT 1
To FRONT BOARD E1
CN8
1 +12V
2 CABLE COMP CONT
3 CABLE COMP S100
4 CABLE COMP S200
5 CABLE COMP S300
6 Y. ADJUST
7 CHROMA ADJUST
8 GROUND
9 +12V
10 MPX ON/OFF
11 RCU INCOM SP
12 RCU SP LEVEL
13 GROUND
JK101 INTERCOM JACK
CN21
1 RCU INCOM MIC
2 RCU SP LEVEL
3 GROUND
CN9
1 RXD
2 TXD
3 GRUND
4 +8.8 V
5 VIDEO 2
6 GROUND
7 GEN-LOCK
8 GROUND
9 TALLY CALL
10 ROP/RCU/ADP
CN103 RCB 10P CONNECTOR
To 15PIN CONNECTOR BOARD E1
CN10
1 GROUND
2 RXD
3 TXD
4 TALLY CALL
5 VIDEO 2
6 GROUND
7 ROP/RCU/ADP
8 +8.8V
TO REAR BOARD E3
CN22
1 +12V
2 +S POWER
3 +S CAM
+8.8V
Vo 100V
Vo RCU
CN1 (To POWER BOARD)
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +5V
6 +5V
7 +5V
8 +5V
9 -5V
10 +12V
11 +12V
12 +12V
13 +12V
14 +12V
15 CABLE PWR SEL2
16 CABLE PWR SEL1
17 NOT USED
18 CLP
19 MPX ON/OFF
20 MPX ON/OFF
21 TXD
22 RXD
23 MPX/RXD
24 COMMAND
25 ROP/RCU/ADP
26 POWER CONT 1
27 POWER CONT 2
28 Vo RCU
29 Vo RCU
30 Vo RCU
31 Vo RCU
32 GROUND
33 GROUND
34 GROUND
35 GROUND
36 EMITTER
37 COLLECTOR
38 BASE
39 +100V
40 +100V
41 MPX
42 GROUND
43 RCU MPX
44 GROUND
45 VIDEO CONT
46 NOT USED
47 GROUND
48 GROUND
49 GROUND
50 GROUND
CN2 (To VIDEO BOARD)
1 +12V
2 +12V
3 NOT USED
4 VIDEO 2
5 VIDEO
6 GROUND
7 R/PR/C
8 B/PB/B
9 G/MIY/Y
10 GROUND
11 AUX
12 GROUND
13 GEN-LOCK
14 +5V
15 +5V
16 VIDEO 1
17 VIDEO 2
18 GROUND
19 -5V
20 R/PR/C
21 B/PB/B
22 G/MIY/Y
23 GROUND
24 Y. ADJUST
25 CHROMA ADJUST
26 AUX
27 GROUND
28 GEN-LOCK
29 GROUND
30 MPX GEN-LOCK
31 MPX ON/OFF
32 +12V
33 SYNC
34 GROUND
35 RCU INCOM SP
36 RCU INCOM MIC
37 GROUND
38 CAM INCOM SP
39 CAM INCOM MIC
40 SEG INCOM SP
41 SEG INCOM MIC
42 P/B AUDIO
43 GROUND
44 CABLE COMP S100
45 CABLE COMP S200
46 CABLE COMP S300
47 CABLE COMP CONT
48 NOT USED
49 CLP
50 GROUND
CN3 (To DEMODULATOR BOARD)
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +8.8V
6 +5V
7 +5V
8 +5V
9 +5V
10 -5V
11 -5V
12 -5V
13 -5V
14 RCU MPX
15 GROUND
16 VIDEO CONT
17 VIDEO 2
18 GROUND
19 NOT USED
20 NOT USED
21 MPX RXD
22 NOT USED
23 GROUND
24 VIDEO 1
25 NOT USED
26 CP
27 NOT USED
28 VD
29 NOT USED
30 100V ON/OFF
31 NOT USED
32 MPX ON/OFF
33 NOT USED
34 NOT USED
35 NOT USED
36 NOT USED
37 NOT USED
38 NOT USED
39 NOT USED
40 NOT USED
41 NOT USED
42 NOT USED
43 NOT USED
44 NOT USED
45 NOT USED
46 GROUND
47 GROUND
48 GROUND
49 GROUND
50 GROUND
CN4 (To MODULATO
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +8.8V
6 +5.0V
7 +5.0V
8 +5.0V
9 +5.0V
10 +5.0V
11 -5.0V
12 -5.0V
13 -5.0V
14 RCU MPX
15 GROUND
16 VIDEO CONT
17 GEN-LOCK
18 GROUND
19 NOT USED
20 NOT USED
21 NOT USED
22 NOT USED
23 GROUND
24 VIDEO 1
25 NOT USED
26 CP
27 NOT USED
28 VD
29 NOT USED
30
31 NOT USED
32
33 NOT USED
34 NOT USED
35 NOT USED
36 TXD
37 NOT USED
38 NOT USED
39 NOT USED
40 NOT USED
41 NOT USED
42 NOT USED
43 NOT USED
44 NOT USED
45 NOT USED
46 GROUND
47 GROUND
48 GROUND
49 GROUND
50 GROUND

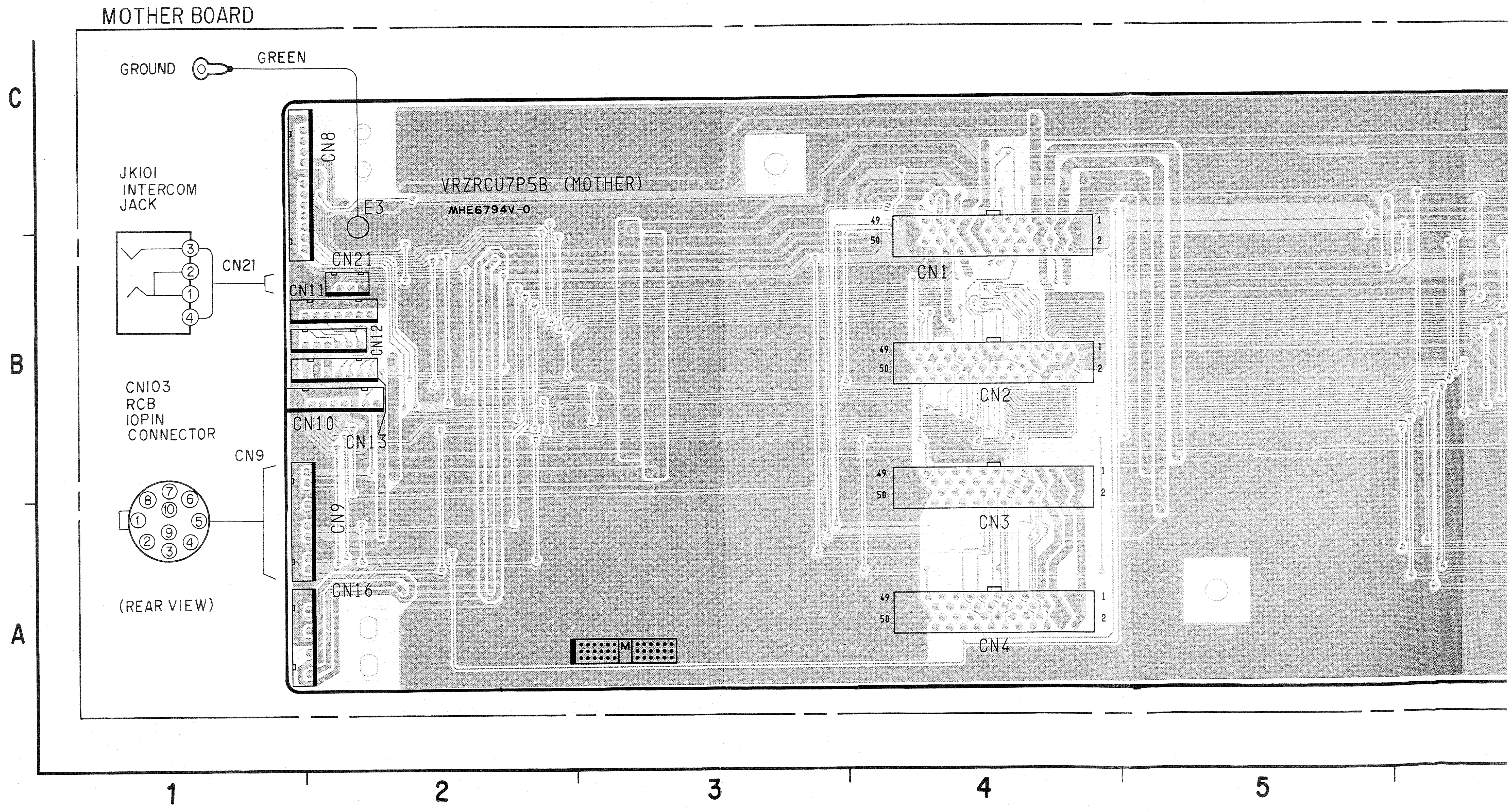
PRODUCT SAFETY NOTICE

COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

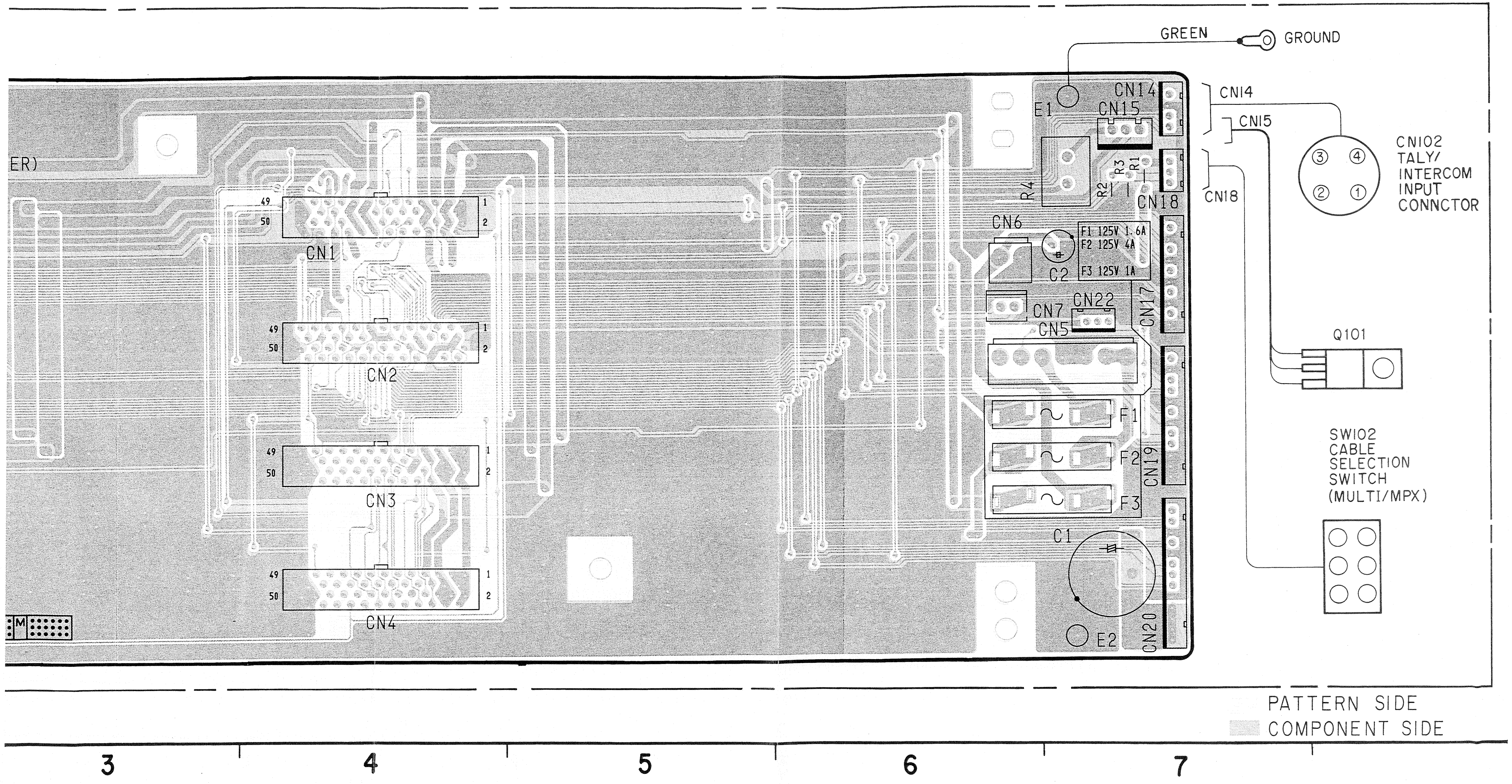
SCHEMATIC DIAGRAM OF MOTHER BOARD


GND
POWER 12V
8.8V
5V
-5V
12V
CN1 (To POWER BOARD)
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +5V
6 +5V
7 +5V
8 +5V
9 -5V
10 +12V
11 +12V
12 +12V
13 +12V
14 +12V
15 CABLE PWR SEL2
16 CABLE PWR SEL1
17 NOT USED
18 CLP
19 MPX ON/OFF
20 MPX ON/OFF
21 TXD
22 RXD
23 MPX/RXD
24 COMMAND
25 ROP/RCU/ADP
26 POWER CONT 1
27 POWER CONT 2
28 Vo RCU
29 Vo RCU
30 Vo RCU
31 Vo RCU
32 GROUND
33 GROUND
34 GROUND
35 GROUND
36 EMITTER
37 COLLECTOR
38 BASE
39 +100V
40 +100V
41 MPX
42 GROUND
43 RCU MPX
44 GROUND
45 VIDEO CONT
46 NOT USED
47 GROUND
48 GROUND
49 GROUND
50 GROUND
CN2 (To VIDEO BOARD)
1 +12V
2 +12V
3 NOT USED
4 VIDEO 2
5 VIDEO
6 GROUND
7 R/PR/C
8 B/PB/B
9 G/M Y/Y
10 GROUND
11 AUX
12 GROUND
13 GEN-LOCK
14 +5V
15 +5V
16 VIDEO 1
17 VIDEO 2
18 GROUND
19 -5V
20 R/PR/C
21 B/PB/B
22 G/M Y/Y
23 GROUND
24 Y. ADJUST
25 CHROMA ADJUST
26 AUX
27 GROUND
28 GEN-LOCK
29 GROUND
30 MPX GEN-LOCK
31 MPX ON/OFF
32 +12V
33 SYNC
34 GROUND
35 RCU INCOM SP
36 RCU INCOM MIC
37 GROUND
38 CAM INCOM SP
39 CAM INCOM MIC
40 SEG INCOM SP
41 SEG INCOM MIC
42 P/B AUDIO
43 GROUND
44 CABLE COMP S100
45 CABLE COMP S200
46 CABLE COMP S300
47 CABLE COMP CONT
48 NOT USED
49 CLP
50 GROUND
CN3 (To DEMODULATOR BOARD)
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +8.8V
6 +5V
7 +5V
8 +5V
9 +5V
10 -5V
11 -5V
12 -5V
13 -5V
14 RCU MPX
15 GROUND
16 VIDEO CONT
17 VIDEO 2
18 GROUND
19 NOT USED
20 NOT USED
21 MPX RXD
22 NOT USED
23 GROUND
24 VIDEO 1
25 NOT USED
26 CP
27 NOT USED
28 VD
29 NOT USED
30 100V ON/OFF
31 NOT USED
32 MPX ON/OFF
33 NOT USED
34 NOT USED
35 NOT USED
36 NOT USED
37 NOT USED
38 NOT USED
39 NOT USED
40 NOT USED
41 NOT USED
42 NOT USED
43 NOT USED
44 NOT USED
45 NOT USED
46 GROUND
47 GROUND
48 GROUND
49 GROUND
50 GROUND
CN4 (To MODULATOR BOARD)
1 +8.8V
2 +8.8V
3 +8.8V
4 +8.8V
5 +8.8V
6 +5.0V
7 +5.0V
8 +5.0V
9 +5.0V
10 +5.0V
11 -5.0V
12 -5.0V
13 -5.0V
14 RCU MPX
15 GROUND
16 VIDEO CONT
17 GEN-LOCK
18 GROUND
19 NOT USED
20 NOT USED
21 NOT USED
22 NOT USED
23 GROUND
24 VIDEO 1
25 NOT USED
26 CP
27 NOT USED
28 VD
29 NOT USED
30
31 NOT USED
32
33 NOT USED
34 NOT USED
35 NOT USED
36 TXD
37 NOT USED
38 NOT USED
39 NOT USED
40 NOT USED
41 NOT USED
42 NOT USED
43 NOT USED
44 NOT USED
45 NOT USED
46 GROUND
47 GROUND
48 GROUND
49 GROUND
50 GROUND
GND
5V
POWER 12V
CN102
TALLY/INTERCOM
INPUT
CONNECTOR
(TOP VIEW)
① ④ ② ③
CN14
1 TALLY
2 GROUND
3 SEG INCOM SP
4 SEG INCOM MIC
CN15
1 EMITTER
2 COLLECTOR
3 BASE
(NOT USED)
Q101
CN16
1 MPX IN/OUT
2 GROUND
3 GEN-LOCK
4 GROUND
5 VIDEO 1
6 GROUND
7 VIDEO 2
8 GROUND
To REAR BOARD E1
CN17
1 R/PR/C
2 GROUND
3 B/PB/B
4 GROUND
5 G/M Y/Y
6 GROUND
7 SYNC
8 GROUND
9 AUX
10 GROUND
To REAR BOARD E2
SW102 CABLE SELECTION SWITCH
R1 100
R3 47K
R2 47K
CN18
1 +5V
2 CABLE PWR SEL1
3 CABLE PWR SEL2
(MULTI) (MPX)
CN19
1 VIDEO
2 GROUND
3 +S CAM
4 G/M Y/Y
5 GROUND
6 R/PR/C
7 GROUND
8 -S POWER
9 B/PB/B
10 GROUND
11 GROUND
12 GROUND
To 26PIN CONNECTOR BOARD E2
E2
GREEN
CN20
1 CAM INCOM SP
2 CAM INCOM MIC
3 GROUND
4 AUX
5 GROUND
6 P/B AUDIO
7 COMMAND
8 GEN-LOCK
9 GROUND
10 +12V
11 +12V
12 +12V
13 +12V
To 26PIN CONNECTOR BOARD E1
C1 2200µF 35V

CONDUCTOR VIEW OF MOTHER BOARD


MOTHER BOARD
GROUND
GREEN
JKI01
INTERCOM
JACK
CN21
CNI03
RCB
IOPIN
CONNECTOR
CN9
(REAR VIEW)
VRZRCU7P5B (MOTHER)
MHE6794V-0
E3
CN8
CN11
CN12
CN10
CN13
CN16
CN1
CN2
CN3
CN4
49
50
1
2
M
C
B
A
1
2
3
4
5

CONDUCTOR VIEW OF MOTHER BOARD


ER)
49
50
1
2
CN1
CN2
CN3
CN4
M
E1
CN14
CN15
R4
R3
R1
R2
CN18
CN6
F1 125V 1.6A
F2 125V 4A
F3 125V 1A
C2
CN7
CN22
CN5
CN17
F1
F2
F3
CN19
C1
E2
CN20
GREEN
GROUND
CN14
CN15
CN18
③ ④
② ①
CN102
TALY/
INTERCOM
INPUT
CONNCTOR
Q101
SW102
CABLE
SELECTION
SWITCH
(MULTI/MPX)
PATTERN SIDE
COMPONENT SIDE
3
4
5
6
7

SCHEMATIC DIAGRAM OF POWER SUPPLY BOARD

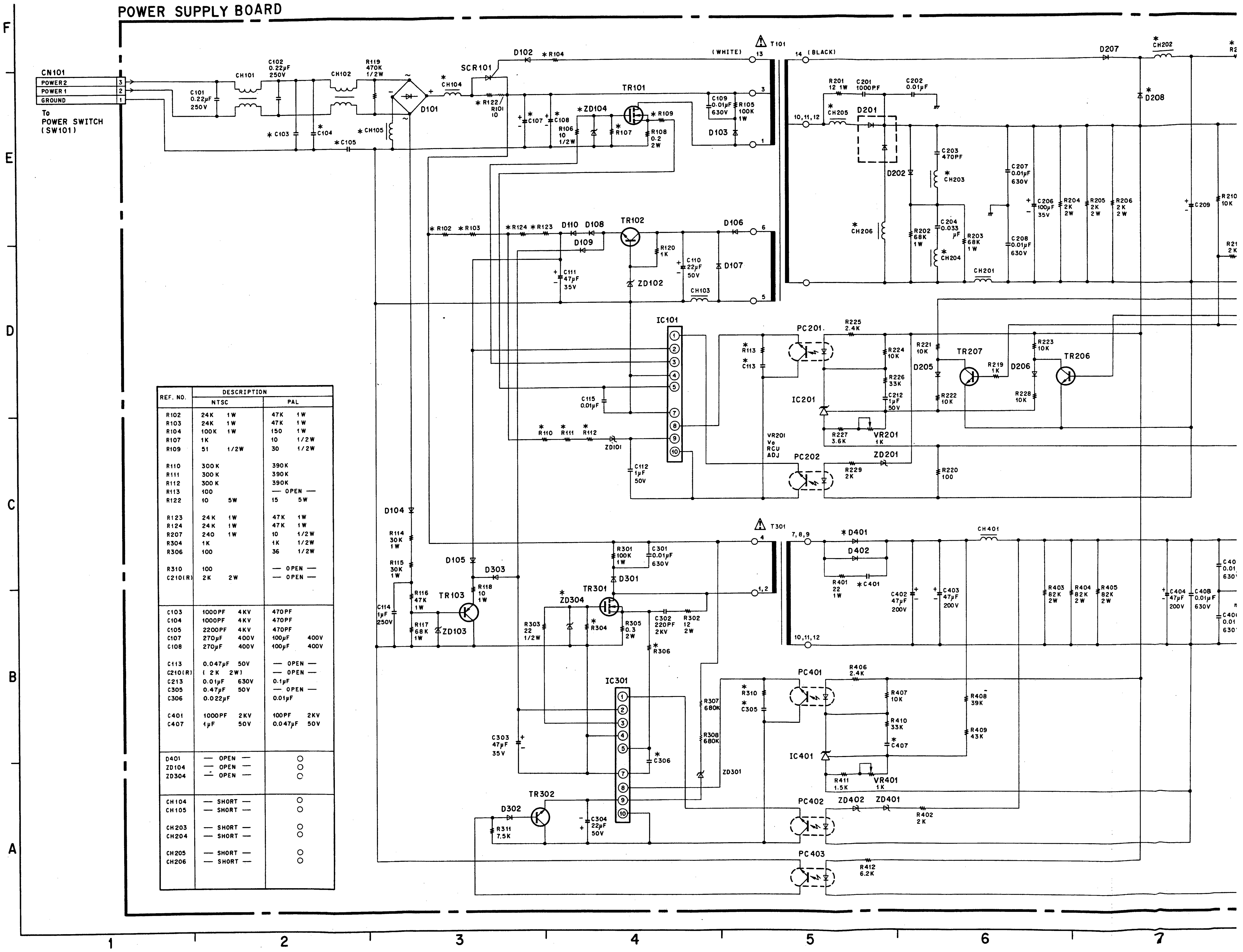
(Voltages)

	IC101	IC201	IC301	IC401
Pin 1	4.3	9.3	4.4	15.1
2	10.6	0.1	11.1	0
3	3.7	2.5	4.1	0
4	4.3		0	
5	4.3		0	
6	-		-	
7	4.3		4.4	
8	4.7		3.3	
9	5.2		6.0	
10	6.1		6.2	

	B	C	E
TR101	5.3	-	5.3
102	11.1	11.6	11.1
103	12.8	4.5	13.2
201	15.1	15.1	15.8
202	15.8	15.8	15.1
203	15.0	15.8	15.8
204	0	2.0	0
205	0	0	0.7
206	0	0	0.7
207	0	8.8	0
301	4.2	-	4.4
302	6.0	6.3	6.6

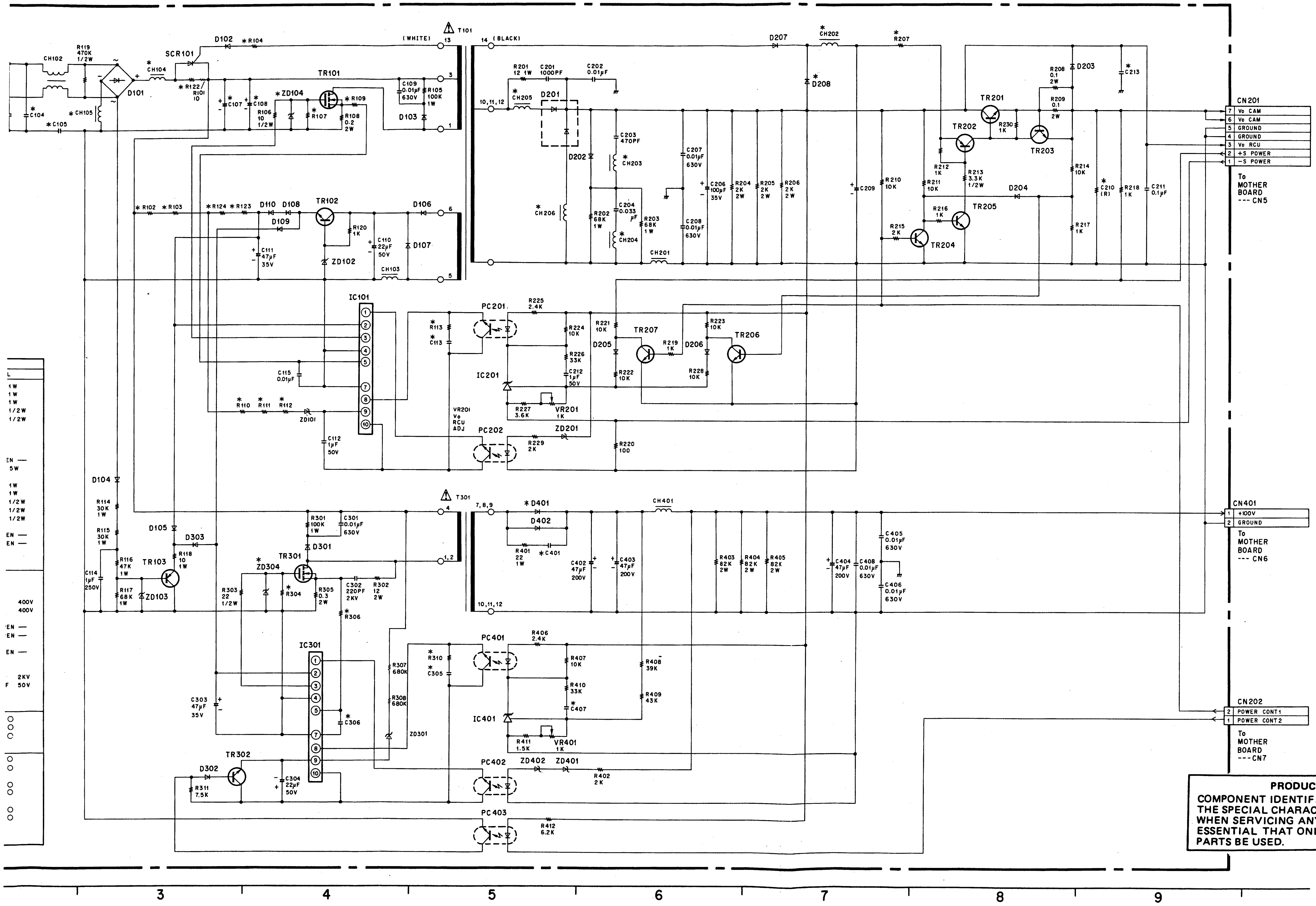
⟨Index⟩
POWER SUPPLY BOARD

IC101	D4	D110	E4
IC201	D5	D201	E5
IC301	B4	D202	E6
IC401	B5	D203	E8
TR101	E4	D204	E8
TR102	E4	D205	D6
TR103	B3	D206	D6
TR201	E8	D207	F7
TR202	E8	D208	E7
TR203	E8	D301	C4
TR204	D8	D302	A3
TR205	D8	D303	C3
TR206	D6	D402	C5
TR207	D6	ZD101	C4
TR301	B4	ZD102	D4
TR302	A3	ZD103	B3
D101	E3	ZD201	C5
D102	F3	ZD301	A4
D103	E5	ZD401	A5
D104	C3	ZD402	A5
D105	C3	PC201	D5
D106	E5	PC202	C5
D107	D4	PC401	B5
D108	E4	PC402	A5
D109	D4	PC403	A5
		SCR101	E3


POWER SUPPLY BOARD
F
E
D
C
B
A
1
2
3
4
5
6
7
CN101
POWER 2
POWER 1
GROUND
To POWER SWITCH (SW101)
C101 0.22μF 250V
CH101
C102 0.22μF 250V
CH102
R119 470K 1/2W
*C103
*C104
*CH105
*C105
D101
*CH104
SCR101
D102
*R104
*R122/R101 10
TR101
*C107
*C108
R106 10 1/2W
*ZD104
*R107
*R109
R108 0.2 2W
C109 0.01μF 630V
R105 100K 1W
D103
T101
(WHITE)
(BLACK)
13
14
3
1
6
5
10, 11, 12
*R102
*R103
*R124
*R123
D110
D108
D109
TR102
R120 1K
C110 22μF 50V
D106
D107
C111 47μF 35V
ZD102
CH103
IC101
C115 0.01μF
*R110
*R111
*R112
ZD101
C112 1μF 50V
D104
R114 30K 1W
R115 30K 1W
C114 1μF 250V
R116 47K 1W
R117 68K 1W
TR103
ZD103
R118 10 1W
D105
D303
R301 100K 1W
C301 0.01μF 630V
D301
T301
4
1, 2
7, 8, 9
*ZD304
TR301
R303 22 1/2W
*R304
R305 0.3 2W
C302 220PF 2KV
R302 12 2W
*R306
IC301
C303 47μF 35V
*C306
R307 680K
R308 680K
ZD301
TR302
D302
R311 7.5K
C304 22μF 50V
R201 12 1W
C201 1000PF
C202 0.01μF
*CH205
D201
D202
C203 470PF
*CH203
*CH206
R202 68K 1W
C204 0.033μF
*CH204
R203 68K 1W
CH201
C207 0.01μF 630V
C206 100μF 35V
R204 2K 2W
R205 2K 2W
R206 2K 2W
C208 0.01μF 630V
D207
*CH202
*D208
C209
R210 10K
PC201
R225 2.4K
*R113
*C113
R224 10K
R226 33K
C212 1μF 50V
IC201
R227 3.6K
VR201 1K
VR201 Vo RCU ADJ
R221 10K
D205
TR207
R219 1K
D206
R223 10K
TR206
R222 10K
R228 10K
PC202
R229 2K
ZD201
R220 100
*D401
D402
R401 22 1W
*C401
CH401
C402 47μF 200V
C403 47μF 200V
R403 82K 2W
R404 82K 2W
R405 82K 2W
C404 47μF 200V
C408 0.01μF 630V
PC401
R406 2.4K
*R310
*C305
R407 10K
R410 33K
*C407
R408 39K
R409 43K
IC401
R411 1.5K
VR401 1K
PC402
ZD402
ZD401
R402 2K
PC403
R412 6.2K

<table>
<tr><th rowspan="2">REF. NO.</th><th colspan="2">DESCRIPTION</th></tr>
<tr><th>NTSC</th><th>PAL</th></tr>
<tr><td>R102</td><td>24K 1W</td><td>47K 1W</td></tr>
<tr><td>R103</td><td>24K 1W</td><td>47K 1W</td></tr>
<tr><td>R104</td><td>100K 1W</td><td>150 1W</td></tr>
<tr><td>R107</td><td>1K</td><td>10 1/2W</td></tr>
<tr><td>R109</td><td>51 1/2W</td><td>30 1/2W</td></tr>
<tr><td>R110</td><td>300K</td><td>390K</td></tr>
<tr><td>R111</td><td>300K</td><td>390K</td></tr>
<tr><td>R112</td><td>300K</td><td>390K</td></tr>
<tr><td>R113</td><td>100</td><td>— OPEN —</td></tr>
<tr><td>R122</td><td>10 5W</td><td>15 5W</td></tr>
<tr><td>R123</td><td>24K 1W</td><td>47K 1W</td></tr>
<tr><td>R124</td><td>24K 1W</td><td>47K 1W</td></tr>
<tr><td>R207</td><td>240 1W</td><td>10 1/2W</td></tr>
<tr><td>R304</td><td>1K</td><td>1K 1/2W</td></tr>
<tr><td>R306</td><td>100</td><td>36 1/2W</td></tr>
<tr><td>R310</td><td>100</td><td>— OPEN —</td></tr>
<tr><td>C210(R)</td><td>2K 2W</td><td>— OPEN —</td></tr>
<tr><td>C103</td><td>1000PF 4KV</td><td>470PF</td></tr>
<tr><td>C104</td><td>1000PF 4KV</td><td>470PF</td></tr>
<tr><td>C105</td><td>2200PF 4KV</td><td>470PF</td></tr>
<tr><td>C107</td><td>270μF 400V</td><td>100μF 400V</td></tr>
<tr><td>C108</td><td>270μF 400V</td><td>100μF 400V</td></tr>
<tr><td>C113</td><td>0.047μF 50V</td><td>— OPEN —</td></tr>
<tr><td>C210(R)</td><td>(2K 2W)</td><td>— OPEN —</td></tr>
<tr><td>C213</td><td>0.01μF 630V</td><td>0.1μF</td></tr>
<tr><td>C305</td><td>0.47μF 50V</td><td>— OPEN —</td></tr>
<tr><td>C306</td><td>0.022μF</td><td>0.01μF</td></tr>
<tr><td>C401</td><td>1000PF 2KV</td><td>100PF 2KV</td></tr>
<tr><td>C407</td><td>1μF 50V</td><td>0.047μF 50V</td></tr>
<tr><td>D401</td><td>— OPEN —</td><td>○</td></tr>
<tr><td>ZD104</td><td>— OPEN —</td><td>○</td></tr>
<tr><td>ZD304</td><td>— OPEN —</td><td>○</td></tr>
<tr><td>CH104</td><td>— SHORT —</td><td>○</td></tr>
<tr><td>CH105</td><td>— SHORT —</td><td>○</td></tr>
<tr><td>CH203</td><td>— SHORT —</td><td>○</td></tr>
<tr><td>CH204</td><td>— SHORT —</td><td>○</td></tr>
<tr><td>CH205</td><td>— SHORT —</td><td>○</td></tr>
<tr><td>CH206</td><td>— SHORT —</td><td>○</td></tr>
</table>

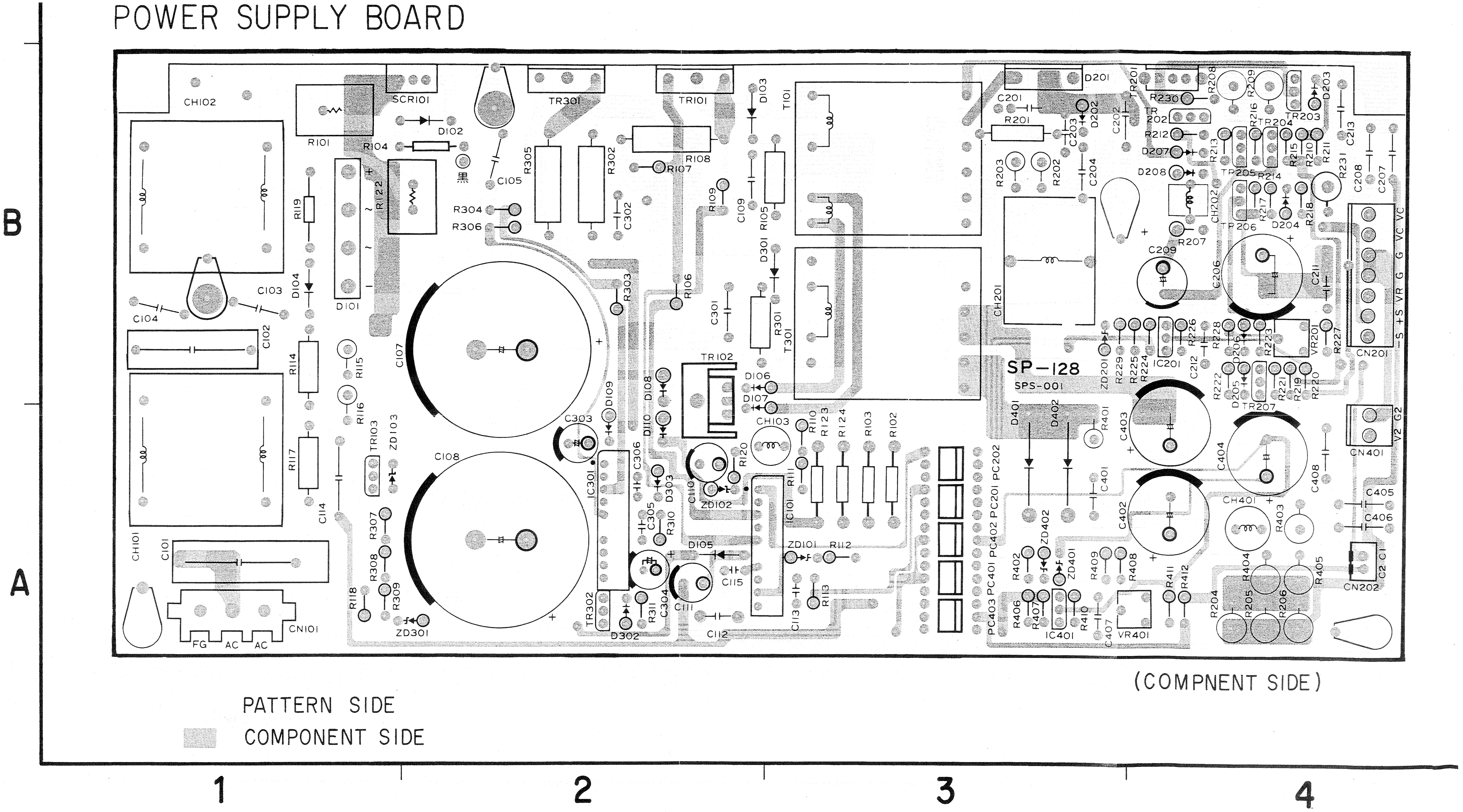
SCHEMATIC DIAGRAM OF POWER SUPPLY BOARD


T101
(WHITE)
14 (BLACK)
D102
R104
SCR101
R119 470K 1/2W
CH102
CH104
D101
R122/R101 10
C104
CH105
C105
C107
C108
R106 10 1/2W
ZD104
TR101
R109
R107
R108 0.2 2W
C109 0.01μF 630V
R105 100K 1W
D103
R102
R103
R124
R123
D110
D108
D109
TR102
R120 1K
C110 22μF 50V
D106
D107
C111 47μF 35V
ZD102
CH103
IC101
C115 0.01μF
R110
R111
R112
ZD101
C112 1μF 50V
R113
C113
PC201
R225 2.4K
R224 10K
R226 33K
C212 1μF 50V
IC201
R227 3.6K
VR201 1K
VR201 Vo RCU ADJ
PC202
ZD201
R229 2K
R220 100
R221 10K
D205
TR207
R219 1K
D206
R223 10K
TR206
R222 10K
R228 10K
R201 12 1W
C201 1000PF
C202 0.01μF
CH205
D201
D202
C203 470PF
CH203
CH206
R202 68K 1W
C204 0.033μF
R203 68K 1W
CH204
CH201
C207 0.01μF 630V
C208 0.01μF 630V
C206 100μF 35V
R204 2K 2W
R205 2K 2W
R206 2K 2W
D207
CH202
R207
D208
C209
R210 10K
R208 0.1 2W
D203
C213
R209 0.1 2W
TR201
TR202
R230 1K
TR203
R212 1K
R211 10K
R213 3.3K 1/2W
R214 10K
D204
R216 1K
TR205
R215 2K
TR204
R217 1K
C210 (R)
R218 1K
C211 0.1μF
CN201
7 Vo CAM
6 Vo CAM
5 GROUND
4 GROUND
3 Vo RCU
2 +S POWER
1 −S POWER
To MOTHER BOARD --- CN5
D104
R114 30K 1W
R115 30K 1W
D105
D303
C114 1μF 250V
R116 47K 1W
TR103
R118 10 1W
R117 68K 1W
ZD103
T301
R301 100K 1W
C301 0.01μF 630V
D301
TR301
ZD304
R303 22 1/2W
R304
R305 0.3 2W
C302 220PF 2KV
R302 12 2W
R306
IC301
C303 47μF 35V
C306
R307 680K
R308 680K
ZD301
TR302
D302
R311 7.5K
C304 22μF 50V
7, 8, 9
D401
D402
R401 22 1W
C401
C402 47μF 200V
C403 47μF 200V
CH401
R403 82K 2W
R404 82K 2W
R405 82K 2W
C404 47μF 200V
C408 0.01μF 630V
C405 0.01μF 630V
C406 0.01μF 630V
10, 11, 12
CN401
1 +100V
2 GROUND
To MOTHER BOARD --- CN6
PC401
R406 2.4K
R310
C305
R407 10K
R410 33K
C407
IC401
R411 1.5K
VR401 1K
R408 39K
R409 43K
PC402
ZD402
ZD401
R402 2K
PC403
R412 6.2K
CN202
2 POWER CONT1
1 POWER CONT2
To MOTHER BOARD --- CN7
3
4
5
6
7
8
9

PRODUCT SAFETY NOTICE

COMPONENT IDENTIFIED WITH THE "⚠" MARK HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN SERVICING ANY OF THESE COMPONENTS, IT IS ESSENTIAL THAT ONLY MANUFACTURE'S SPECIFIED PARTS BE USED.

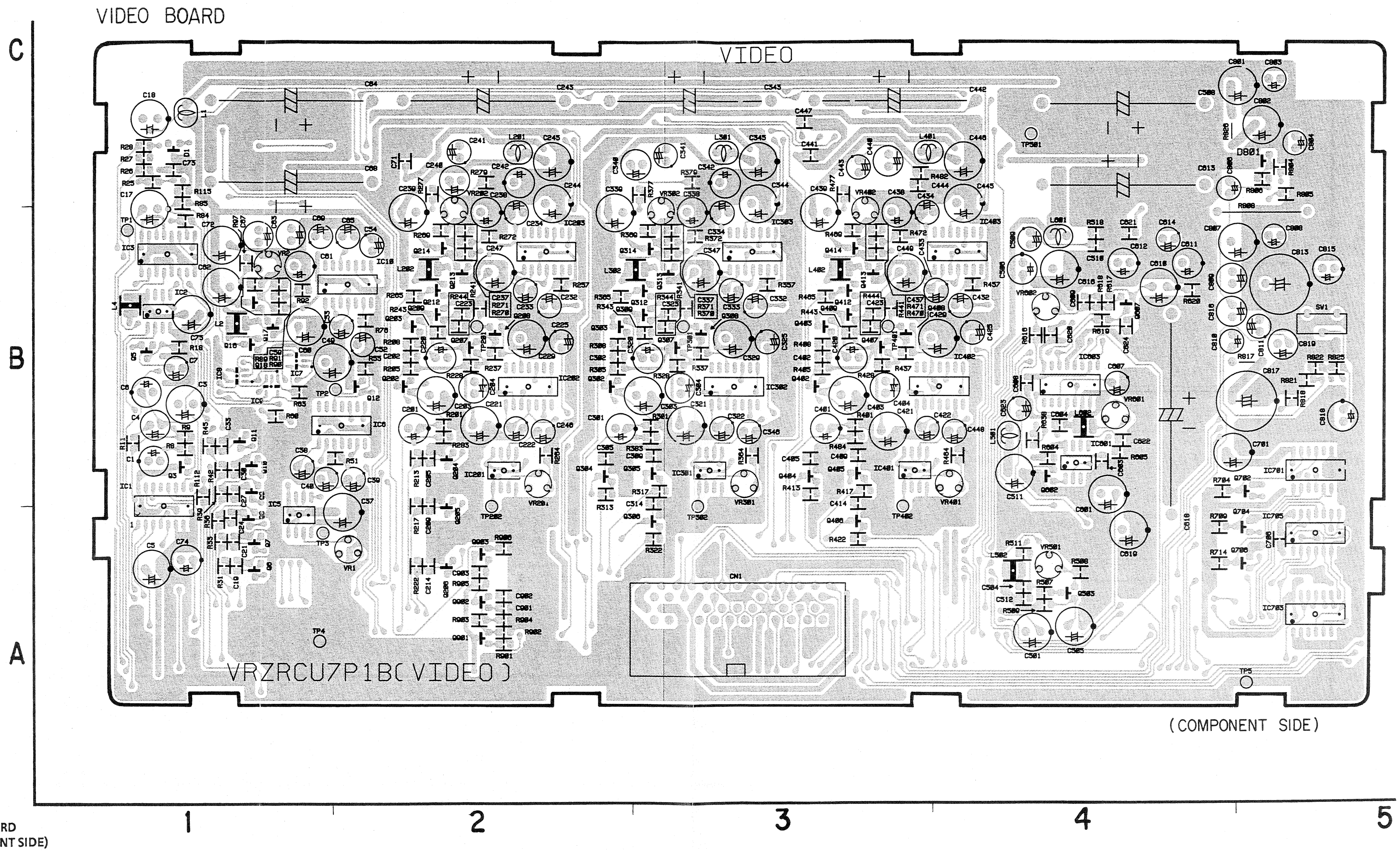
CONDUCTOR VIEW OF POWER SUPPLY BOARD


POWER SUPPLY BOARD
B
A
1
2
3
4
SP-128
SPS-001
(COMPNENT SIDE)
PATTERN SIDE
COMPONENT SIDE
CH102
CH101
CH103
CH201
CH202
CH401
CN101
CN201
CN202
CN401
FG
AC
AC
SCR101
TR101
TR102
TR103
TR201
TR202
TR203
TR204
TR205
TR206
TR207
TR301
TR302
IC101
IC201
IC301
IC401
T101
T301
VR201
VR401
R101
R102
R103
R104
R105
R106
R107
R108
R109
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R120
R122
R123
R124
R201
R202
R203
R204
R205
R206
R207
R208
R209
R210
R211
R212
R213
R214
R215
R216
R217
R218
R219
R220
R221
R222
R223
R224
R225
R226
R227
R228
R229
R230
R231
R301
R302
R303
R304
R305
R306
R307
R308
R309
R310
R311
R401
R402
R403
R404
R405
R406
R407
R408
R409
R410
R411
R412
C101
C102
C103
C104
C105
C107
C108
C109
C110
C111
C112
C113
C114
C115
C201
C202
C203
C204
C206
C207
C208
C209
C211
C212
C213
C301
C302
C303
C304
C305
C306
C401
C402
C403
C404
C405
C406
C407
C408
D101
D102
D103
D104
D105
D106
D107
D108
D109
D110
D201
D202
D203
D204
D205
D206
D207
D208
D301
D302
D303
D401
D402
ZD101
ZD102
ZD103
ZD201
ZD301
ZD401
ZD402
PC201
PC202
PC401
PC402
PC403
-S +S VR G G VC VC
V2 G2
C2 C1

⟨Index⟩
POWER SUPPLY BOARD

IC101	A2	TR102	B2	TR204	B4	TR302	A2	D105	A2	D110	A2	D205	B4	D302	A2	ZD103	A1	PC201	A3	SCR101	B2
IC201	B4	TR103	A1	TR205	B4	D101	B1	D106	B2	D201	B3	D206	B4	D303	A2	ZD201	B3	PC202	A3		
IC301	A2	TR201	B4	TR206	B4	D102	B2	D107	A2	D202	B3	D207	B4	D402	A3	ZD301	A2	PC401	A3		
IC401	A3	TR202	B4	TR207	B4	D103	B2	D108	B2	D203	B4	D208	B4	ZD101	A3	ZD401	A3	PC402	A3		
TR101	B2	TR203	B4	TR301	B2	D104	B1	D109	A2	D204	B4	D301	B2	ZD102	A2	ZD402	A3	PC403	A3		

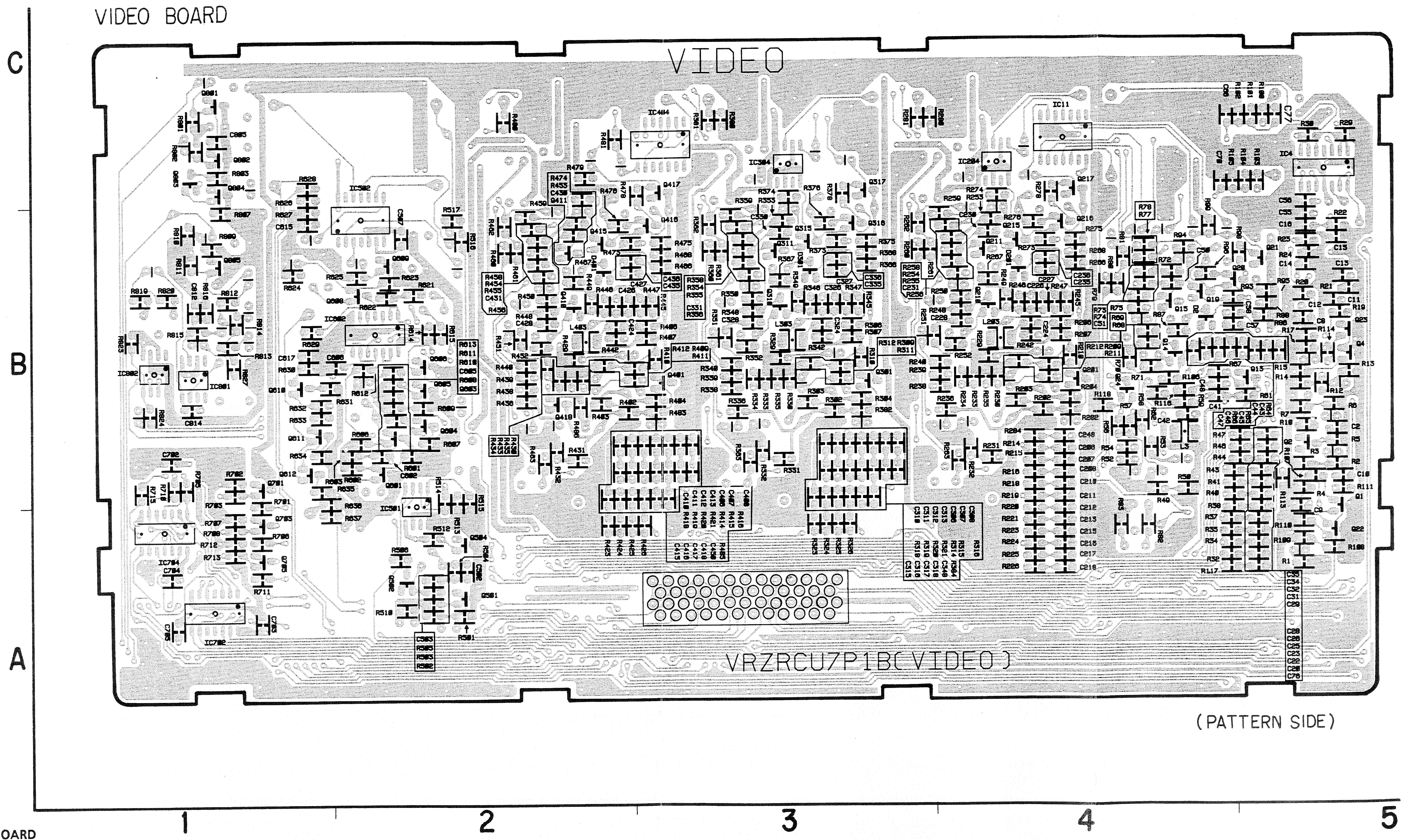
CONDUCTOR VIEW OF VIDEO BOARD (COMPONENT SIDE)


VIDEO BOARD
VIDEO
C
B
A
1
2
3
4
5
VRZRCU7P1B(VIDEO)
(COMPONENT SIDE)
CN1
SW1
D801
TP1
TP2
TP3
TP4
TP5
TP201
TP202
TP301
TP302
TP401
TP402
TP501
IC1
IC2
IC3
IC5
IC6
IC7
IC8
IC9
IC10
IC201
IC202
IC203
IC301
IC302
IC303
IC401
IC402
IC403
IC601
IC603
IC701
IC703
IC705
VR1
VR2
VR201
VR202
VR301
VR302
VR401
VR402
VR501
VR601
VR602
L1
L2
L4
L201
L202
L301
L302
L401
L402
L501
L502
L601
L602

⟨Index⟩
VIDEO BOARD
(COMPONENT SIDE)

IC1	B1
IC2	B1
IC3	B1
IC5	A1
IC6	B2
IC7	B1
IC8	B1
IC9	B1
IC10	B2
IC201	B2
IC202	B2
IC203	B2
IC301	B3
IC302	B3
IC303	B3
IC401	B3
IC402	B4
IC403	B4
IC601	B4
IC603	B4
IC701	B5
IC703	A5
IC705	A5
Q3	B1
Q5	B1
Q6	A1
Q7	A1
Q8	A1
Q9	B1
Q10	B1
Q11	B1
Q12	B2
Q16	B1
Q17	B1
Q18	B1
Q202	B2
Q203	B2
Q204	B2
Q205	A2
Q206	A2
Q207	B2
Q208	B2
Q209	B2
Q212	B2
Q213	B2
Q214	B2
Q302	B2
Q303	B2
Q304	B2
Q305	B3
Q306	A3
Q307	B3
Q308	B3
Q309	B3
Q312	B3
Q313	B3
Q314	B3
Q402	B3
Q403	B3
Q404	B3
Q405	B3
Q406	A3
Q407	B3
Q408	B3
Q409	B3
Q412	B3
Q413	B3
Q414	B3
Q503	A4
Q602	B4
Q607	B4
Q702	B5
Q704	A5
Q706	A5
Q901	A2
Q902	A2
Q903	A2
D1	C1
D801	C5

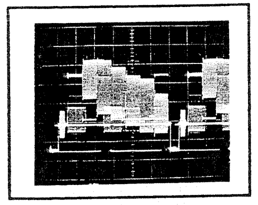
CONDUCTOR VIEW OF VIDEO BOARD (PATTERN SIDE)



⟨Index⟩
VIDEO BOARD
(PATTERN SIDE)

IC4	C5
IC11	C4
IC204	C4
IC304	C3
IC404	C3
IC501	B2
IC502	B3
IC602	B2
IC702	A1
IC704	A1
IC801	B1
IC802	B1
Q1	B5
Q2	B5
Q4	B5
Q13	B5
Q14	B4
Q15	B4
Q19	B4
Q20	B4
Q21	B5
Q22	A5
Q23	B5
Q24	B4
Q201	B4
Q210	B4
Q211	B4
Q215	B4
Q216	B4
Q217	C4
Q301	B3
Q310	B3
Q311	B3
Q315	B3
Q316	B3
Q317	C3
Q401	B3
Q410	B2
Q411	C2
Q415	B2
Q416	B3
Q417	C3
Q418	B2
Q501	A2
Q502	A2
Q504	A2
Q601	B2
Q603	B2
Q604	B2
Q605	B2
Q606	B2
Q608	B2
Q609	B2
Q610	B1
Q611	B1
Q612	B1
Q701	B1
Q703	A1
Q705	A1
Q801	C1
Q802	C1
Q803	C1
Q804	C1
Q805	B1
D2	B4
D201	B4
D301	B3
D401	B2

1. 10µs/DIV 0.2V/DIV



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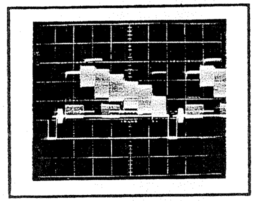
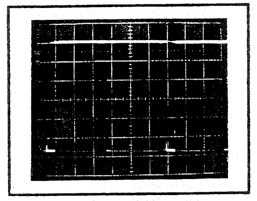
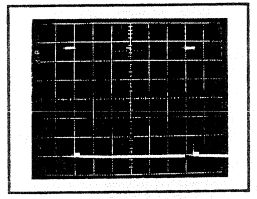


3. 10µsDIV 2V/DIV



4. 10µs/DIV 2V/DIV



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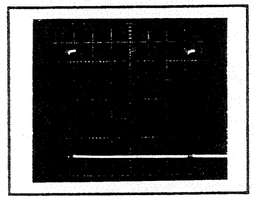
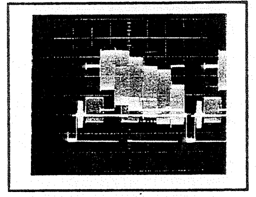


6. 10µs/DIV 0.2V/DIV



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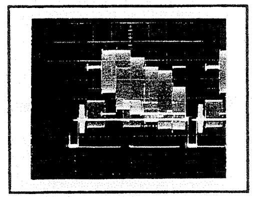

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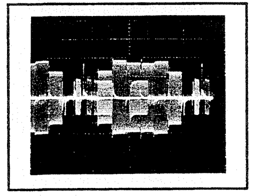

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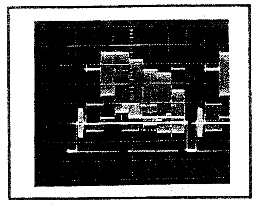

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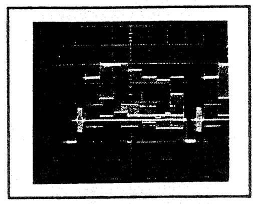
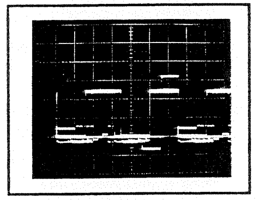


11. 10µs/DIV 0.5V/DIV



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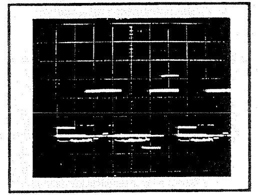
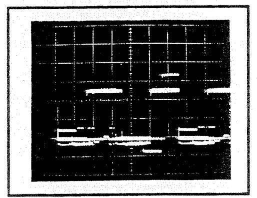


13. 10µs/DIV 0.2V/DIV



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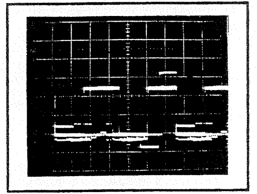

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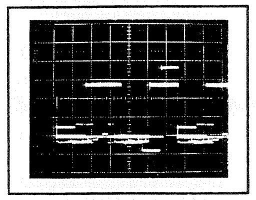
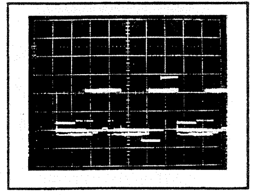
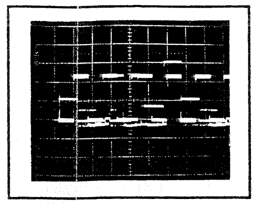


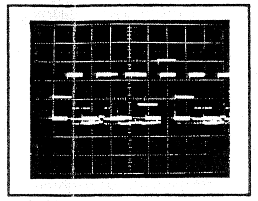
16. 10µs/DIV 0.2V/DIV



17. 10µs/DIV 0.2V/DIV



18. 10µs/DIV 0.2V/DIV



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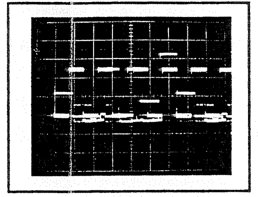

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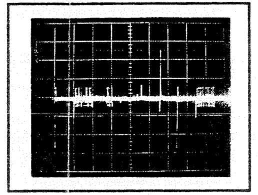
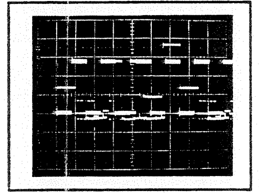
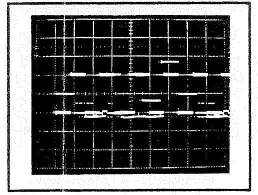


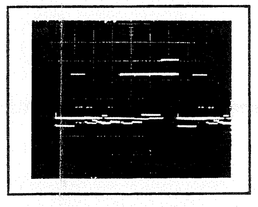
21. 10µs/DIV 0.2V/DIV



22. 10µs/DIV 0.2V/DIV



23. 10µs/DIV 0.2V/DIV



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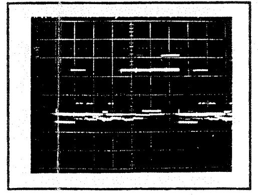
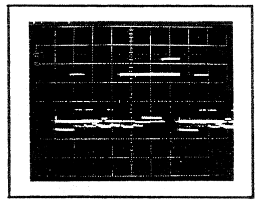
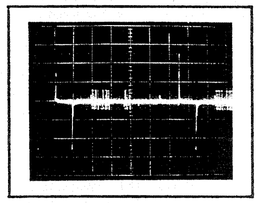


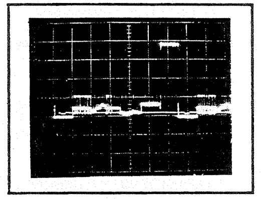
25. 10µs/DIV 0.2V/DIV



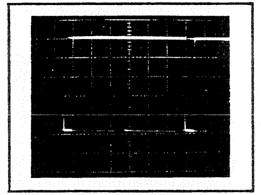
26. 10µs/DIV 0.2V/DIV



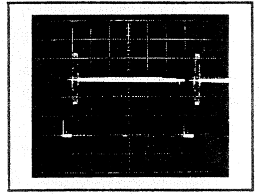
27. 10µs/DIV 0.2V/DIV



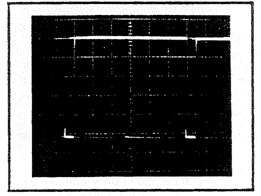
28. 10µs/DIV 0.2V/DIV



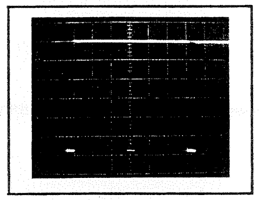
29. 10µs/DIV 0.1V/DIV



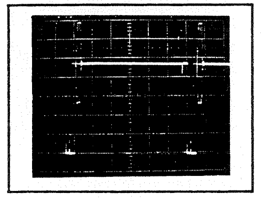
30. 10µs/DIV 2V/DIV



31. 10µs/DIV 2V/DIV



32. 10µs/DIV 0.2V/DIV



(Voltages)

	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	IC9	IC10	IC11	IC201
Pin 1	7.4	11.0	0	0	6.5	4.0	0	2.6	0	4.0	1.7	6.5
2	7.9	2.4	4.7	5.7	6.5	0	0.1	2.6	0	3.2	1.7	6.5
3	2.3	11.4	11.6	5.7	6.5	3.2	0	0	0	3.2	1.7	6.5
4	2.3	0	1.0	11.6	0	4.0	0	0	0	4.0	2.4	0
5	5.2	10.8	11.6	4.0	4.7	0	11.6	11.6	11.6	0	0	4.8
6	0	1.2	11.6	4.0	4.7	7.9				9.6	2.4	4.8
7	0	5.8	0	4.0	4.7	0				0	0	4.8
8	0	11.5	0	5.6	11.6	4.7				6.5	1.7	11.6
9	9.1		11.0	5.6		0				0	1.9	
10	11.6		0.6	5.6		4.8				6.5	1.8	
11	11.6		11.0	0		0				0	1.7	
12	0.1		0	5.8		8.0				7.0	2.0	
13	3.5		11.6	5.8		0				0	2.1	
14	3.5		10.3	5.8		0				0	5.0	
15	7.4		0									
16	11.6		11.6									

	IC202	IC203	IC204	IC301	IC302	IC303	IC304	IC401	IC402	IC403	IC404	IC501
Pin 1	4.0	4.0	1.2	6.5	0	4.0	1.2	6.5	4.0	4.0	1.7	0
2	3.2	0	5.0	6.5	3.2	3.2	5.0	6.5	0	3.2	1.3	6.6
3	0	3.2	1.1	6.5	3.3	3.2	1.1	0	3.2	3.2	1.7	5.8
4	0	4.0	5.0	0	0	0	5.1	0	0	4.0	2.4	0
5	0	0	1.1	0	0	0	1.1	4.7	0	0	0	0
6	8.2	9.6	5.1	4.7	8.2	9.6	5.0	4.7	0	10.0	2.4	11.6
7	0	0	0	4.7	0	0	0	4.7	0	0	0	0
8	4.7	0	-5.0	11.6	4.7	0	-5.0	11.6	0	6.5	1.6	11.6
9	0	0			0	0			0	0	1.8	
10	0	6.5			0	6.4			4.8	6.4	1.8	
11	0	0			0	0			0	0	1.3	
12	0	7.0			8.6	7.0			8.5	7.0	1.1	
13	0	0			0	0			0	0	2.1	
14	0	0			0	0			0	0	4.5	
15												
16												

	IC502	IC601	IC602	IC603	IC701	IC702	IC703	IC704	IC705	IC801	IC802
Pin 1	1.7	0	10.6	0	11.6	0	0	0	0	1.3	9.1
2	1.3	0	10.6	0.1	11.6	0	0	0	0	0	0
3	1.7	0	0.9	10.1	0	0	11.6	0	0	0	10.3
4	2.4	0	10.5	10.1	0	0	0	0	0	0	0
5	0	11.6	0.9	0	11.6	0	9.1	0	0	4.5	0
6	2.4	0	0.9	0	11.6	0	9.1	0	0	9.9	0
7	0	0.1	0	0	0	0	0	0	0	4.9	0
8	1.6	11.6	0.7	0	0	0	0	11.6	0	1.3	10.3
9	1.8		0.7	11.6	0	0	0	9.1	0	1.3	
10	1.8		10.8	0	11.6	0	11.6	11.6	0		
11	1.3		0.7	9.1	0	0	0	0	0		
12	1.1		10.7	0	0	0	11.6	9.1	0		
13	2.1		10.7	0	11.6	0	11.6	0	0		
14	4.5		11.6	0	11.6	11.6	11.6	11.6	11.6		
15				0							
16				0							

	B	C	E
Q1	3.5	11.6	2.7
2	3.5	4.4	2.7
3	4.4	11.6	3.6
4	4.8	0	4.1
5	11.3	1.0	11.6
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	11.6	7.4
13	3.4	11.6	2.6
14	3.4	6.8	2.6
15	6.8	11.6	6.2
16	5.0	0.3	5.2
17	5.2	0	0
18	5.8	11.6	5.2
19	5.0	6.2	4.4
20	5.5	2.9	6.2
21	2.9	11.6	2.3
22	5.8	11.6	5.2
23	4.8	11.6	4.0
24	8.0	11.6	7.4
201	3.5	11.6	2.7
202	3.5	4.4	0
203	4.3	11.6	3.6
204	0	0	0
205	0	0	0
206	0	0.1	0
207	5.1	11.6	4.5
208	8.6	11.6	8.0
209	3.4	0	0
210	3.3	7.2	2.5
211	7.1	11.6	6.5
212	5.0	0.3	5.0
213	0	0	5.6
214	5.6	11.6	5.0
215	2.8	6.1	2.1
216	5.5	3.1	6.1
217	3.1	11.6	2.5
301	3.5	11.6	2.7
302	3.5	4.4	0
303	4.3	11.6	3.6
304	0	0	0
305	0	0	0
306	0	0.1	0
307	5.1	11.6	4.5
308	8.6	11.6	8.0
309	3.4	0	0
310	3.3	7.2	2.5
311	7.1	11.6	6.5
312	5.0	0.3	5.0

	B	C	E
Q313	5.0	0	5.6
314	5.6	11.6	5.0
315	2.8	6.1	2.1
316	5.5	3.1	6.1
317	3.1	11.6	2.5
401	3.5	11.6	2.7
402	3.5	4.4	0
403	4.3	11.6	3.6
404	0	0	0
405	0	0	0
406	0	0.1	0
407	5.1	11.6	4.5
408	8.6	11.6	8.0
409	3.4	0	0
410	3.3	7.5	2.5
411	7.1	11.6	6.5
412	5.0	0.3	5.0
413	5.0	0	5.6
414	5.6	11.6	5.0
415	2.8	6.1	2.1
416	5.5	3.1	6.1
417	3.1	11.6	2.5
501	3.6	11.6	2.4
502	2.4	0	2.4
503	3.0	5.8	0
504	5.8	11.6	5.1
601	3.1	0	2.5
602	10.6	0	10.2
603	2.5	11.6	1.9
604	2.9	10.7	2.3
605	10.7	11.6	10.1
606	10.1	11.6	9.5
607	9.5	0	9.5
608	3.1	7.9	2.5
609	8.0	11.6	7.3
610	9.6	11.6	9.0
611	9.0	11.6	8.5
612	9.0	0	8.5
701	0	11.6	0
702	0	11.6	0
703	0	11.6	0
704	0	11.6	0
705	0	11.6	0
706	0	11.6	0
801	7.0	10.3	0
802	7.0	10.3	6.3
803	0.6	7.1	0.1
804	1.2	10.2	0.6
805	5.4	10.3	4.8
901	0	11.6	0
902	7.0	0	6.5
903	7.4	0	6.8

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IC203	C7
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Q4	E3
Q5	E3
Q6	D1
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Q8	D2
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Q10	D2
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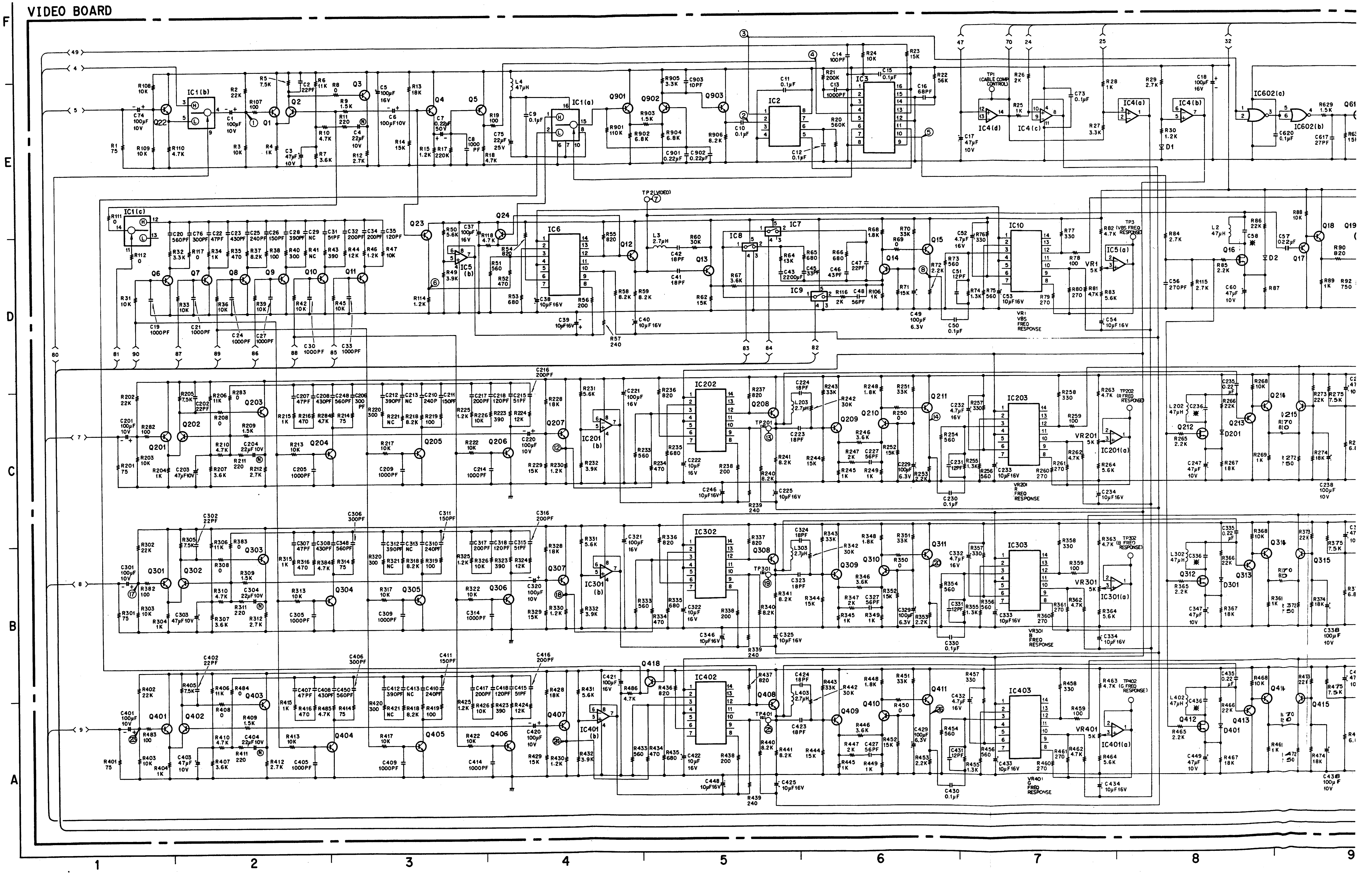
SCHEMATIC DIAGRAM O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L3 2.7μH
L4 47μH
L202 47μH
L203 2.7μH
L302 47μH
L303 2.7μH
L402 47μH
L403 2.7μH
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TP2(VIDEO)
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TP202 (R FREQ RESPONSE)
TP301
TP302 (B FREQ RESPONSE)
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VR201 5K R FREQ RESPONSE
VR301 5K B FREQ RESPONSE
VR401 5K G FREQ RESPONSE
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R108 10K
R109 10K
R110 4.7K
C74 100μF 10V
R2 22K
R3 10K
R4 1K
R5 7.5K
R6 11K
R7 3.6K
R8 0
R9 1.5K
R10 4.7K
R11 220
R12 2.7K
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R14 15K
R15 1.2K
R17 220K
R18 4.7K
R19 100
R107 100
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C4 22μF 10V
C5 100μF 16V
C6 100μF 10V
C7 0.22μF 50V
C8 1000PF
C75 22μF 25V
C9 0.1μF
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R902 6.8K
R903 1.5K
R904 6.8K
R905 3.3K
R906 8.2K
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C902 0.22μF
C903 10PF
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C11 0.1μF
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R33 10K
R36 10K
R39 10K
R42 10K
R45 10K
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C21 1000PF
C24 1000PF
C27 1000PF
C30 1000PF
C33 1000PF
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C37 100μF 16V
R118 4.7K
R49 3.9K
R114 1.2K
R54 820
R51 560
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C39 10μF 16V
R56 200
R55 820
R57 240
R58 8.2K
R59 8.2K
C40 10μF 16V
C42 18PF
C41 18PF
R60 30K
R62 15K
R64 13K
R65 680
C43 2200pF
C45 33PF
R67 3.6K
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C47 22PF
R116 2K
C48 56PF
R106 1K
R68 1.8K
R69 0
R70 33K
R71 15K
R72 2.2K
R73 560
C51 12PF
R74 1.3K
R75 560
C49 100μF 6.3V
C50 0.1μF
C52 4.7μF 16V
R76 330
C53 10μF 16V
R77 330
R78 100
R79 270
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R83 5.6K
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C57 0.22μF
R89 1K
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R202 22K
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R282 10K
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R206 11K
R283 0
R208 0
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R210 4.7K
C204 22μF 10V
R211 220
R207 3.6K
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C206 300PF
R215 1K
R216 470
R284 4.7K
R214 75
R213 10K
C205 1000PF
C212 390PF
C213 NC
C210 240P
C211 150PF
R220 300
R221 NC
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R219 100
R217 10K
C209 1000PF
C217 200PF
C218 120PF
C215 51PF
C216 200PF
R225 1.2K
R226 10K
R223 390
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R222 10K
C214 1000PF
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R240 8.2K
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R247 2K
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R250 0
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R252 15K
C229 100μF 6.3V
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C230 0.1μF
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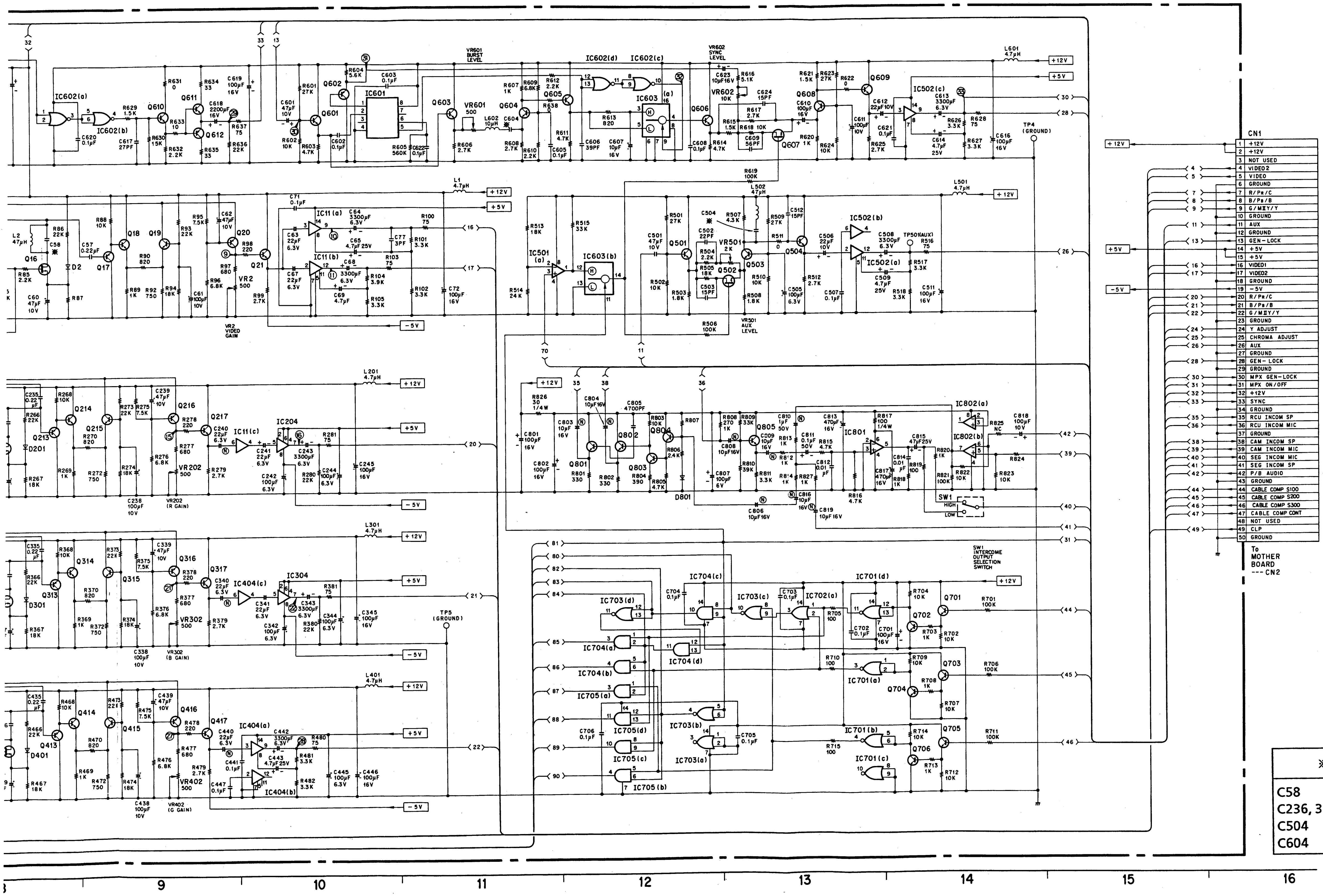
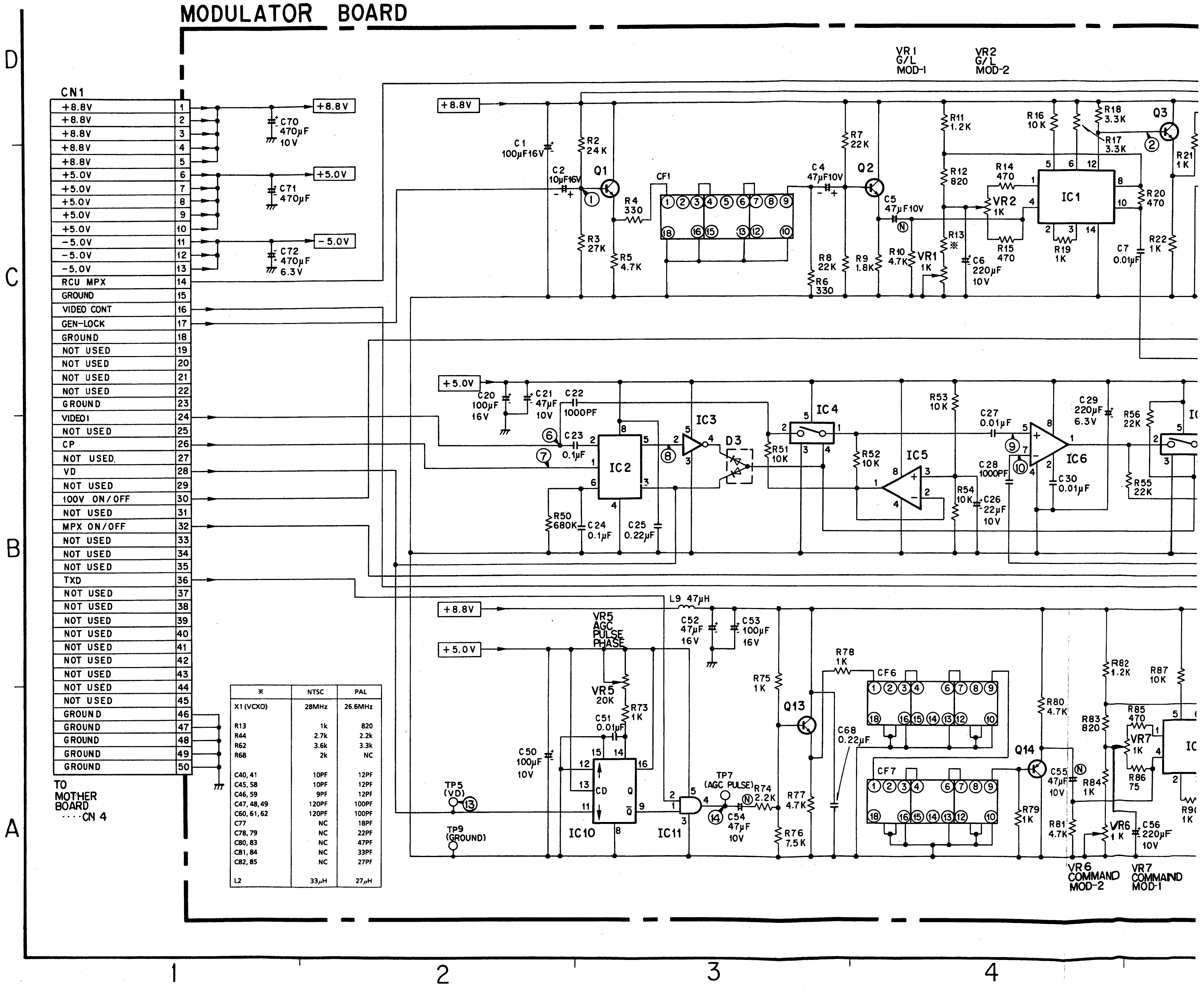
R257 330
R254 560
C231 12PF
R255 1.3K
R256 560
C233 10μF 16V
R260 270
R261 270
R258 330
R259 100
R262 4.7K
R263 4.7K
R264 5.6K
C234 10μF 16V
C236
R265 2.2K
C247 47μF 10V
R267 18K
C235 0.22μF
R266 22K
R268 10K
R269 1K
R270 810
R272 750
R273 22K
R275 7.5K
R274 18K
C238 100μF 10V
R302 22K
C301 100μF 10V
R301 75
R382 100
R303 10K
R304 1K
C303 47μF 10V
C302 22PF
R305 7.5K
R306 11K
R383 0
R308 0
R309 1.5K
R310 4.7K
C304 22μF 10V
R311 220
R307 3.6K
R312 2.7K
C307 47PF
C308 430PF
C348 560PF
C306 300PF
R315 1K
R316 470
R384 4.7K
R314 75
R313 10K
C305 1000PF
C312 390PF
C313 NC
C310 240PF
C311 150PF
R320 300
R321 NC
R318 8.2K
R319 100
R317 10K
C309 1000PF
C317 200PF
C318 120PF
C315 51PF
C316 200PF
R325 1.2K
R326 10K
R323 390
R324 12K
R322 10K
C314 1000PF
C320 100μF 10V
R328 18K
R329 15K
R330 1.2K
R331 5.6K
R332 3.9K
C321 100μF 16V
R336 820
R333 560
R334 470
R335 680
C322 10μF 16V
R338 200
C346 10μF 16V
R337 820
R339 240
C324 18PF
L303 2.7μH
C323 18PF
R341 8.2K
R340 8.2K
C325 10μF 16V
R343 33K
R342 30K
R344 15K
R348 1.8K
R346 3.6K
R347 2K
C327 56PF
R345 1K
R349 1K
R350 0
R351 33K
R352 15K
C329 100μF 6.3V
R353 2.2K
C330 0.1μF
C332 4.7μF 16V
R357 330
R354 560
C331 12PF
R355 1.3K
R356 560
C333 10μF 16V
R360 270
R361 270
R358 330
R359 100
R362 4.7K
R363 4.7K
R364 5.6K
C334 10μF 16V
C336
R365 2.2K
C347 47μF 10V
R367 18K
C335 0.22μF
R366 22K
R368 10K
R361 1K
R370 810
R372 750
R373 22K
R375 7.5K
R374 18K
C338 100μF 10V
R402 22K
C401 100μF 10V
R401 75
R483 100
R403 10K
R404 1K
C403 47μF 10V
C402 22PF
R405 7.5K
R406 11K
R484 0
R408 0
R409 1.5K
R410 4.7K
C404 22μF 10V
R411 220
R407 3.6K
R412 2.7K
C407 47PF
C408 430PF
C450 560PF
C406 300PF
R415 1K
R416 470
R485 4.7K
R414 75
R413 10K
C405 1000PF
C412 390PF
C413 NC
C410 240PF
C411 150PF
R420 300
R421 NC
R418 8.2K
R419 100
R417 10K
C409 1000PF
C417 200PF
C418 120PF
C415 51PF
C416 200PF
R425 1.2K
R426 10K
R423 390
R424 12K
R422 10K
C414 1000PF
C420 100μF 10V
R428 18K
R429 15K
R430 1.2K
R431 5.6K
R432 3.9K
C421 100μF 16V
R486 4.7K
R436 820
R433 560
R434 470
R435 680
C422 10μF 16V
R438 200
C448 10μF 16V
R437 820
R439 240
C424 18PF
L403 2.7μH
C423 18PF
R441 8.2K
R440 8.2K
C425 10μF 16V
R443 33K
R442 30K
R444 15K
R448 1.8K
R446 3.6K
R447 2K
C427 56PF
R445 1K
R449 1K
R450 0
R451 33K
R452 15K
C429 100μF 6.3V
R453 2.2K
C430 0.1μF
R457 330
C432 4.7μF 16V
R454 560
C431 12PF
R455 1.3K
R456 560
C433 10μF 16V
R460 270
R461 270
R458 330
R459 100
R462 4.7K
R463 4.7K
R464 5.6K
C434 10μF 16V
C436
R465 2.2K
C449 47μF 10V
R467 18K
C435 0.22μF
R466 22K
R468 10K
R461 1K
R470 810
R472 750
R473 22K
R475 7.5K
R474 18K
C438 100μF 10V

DIAGRAM OF VIDEO BOARD


IC602(a)
IC602(b)
IC602(d)
IC602(c)
IC601
IC603(a)
IC603(b)
IC501(a)
IC502(a)
IC502(b)
IC502(c)
IC11(a)
IC11(b)
IC11(c)
IC204
IC304
IC404(a)
IC404(b)
IC404(c)
IC801
IC802(a)
IC802(b)
IC701(a)
IC701(b)
IC701(c)
IC701(d)
IC702(a)
IC703(a)
IC703(b)
IC703(c)
IC703(d)
IC704(a)
IC704(b)
IC704(c)
IC704(d)
IC705(a)
IC705(b)
IC705(c)
IC705(d)
VR601 BURST LEVEL
VR602 SYNC LEVEL
VR501 AUX LEVEL
VR2 VIDEO GAIN
VR202 (R GAIN)
VR302 (B GAIN)
VR402 (G GAIN)
TP4 (GROUND)
TP5 (GROUND)
TP501(AUX)
SW1 INTERCOM OUTPUT SELECTION SWITCH
HIGH
LOW
+12V
+5V
-5V
CN1
1 +12V
2 +12V
3 NOT USED
4 VIDEO2
5 VIDEO
6 GROUND
7 R/PR/C
8 B/PB/B
9 G/MII Y/Y
10 GROUND
11 AUX
12 GROUND
13 GEN-LOCK
14 +5V
15 +5V
16 VIDEO1
17 VIDEO2
18 GROUND
19 -5V
20 R/PR/C
21 B/PB/B
22 G/MII Y/Y
23 GROUND
24 Y ADJUST
25 CHROMA ADJUST
26 AUX
27 GROUND
28 GEN-LOCK
29 GROUND
30 MPX GEN-LOCK
31 MPX ON/OFF
32 +12V
33 SYNC
34 GROUND
35 RCU INCOM SP
36 RCU INCOM MIC
37 GROUND
38 CAM INCOM SP
39 CAM INCOM MIC
40 SEG INCOM MIC
41 SEG INCOM SP
42 P/B AUDIO
43 GROUND
44 CABLE COMP S100
45 CABLE COMP S200
46 CABLE COMP S300
47 CABLE COMP CONT
48 NOT USED
49 CLP
50 GROUND
To MOTHER BOARD ---CN2
9
10
11
12
13
14
15
16

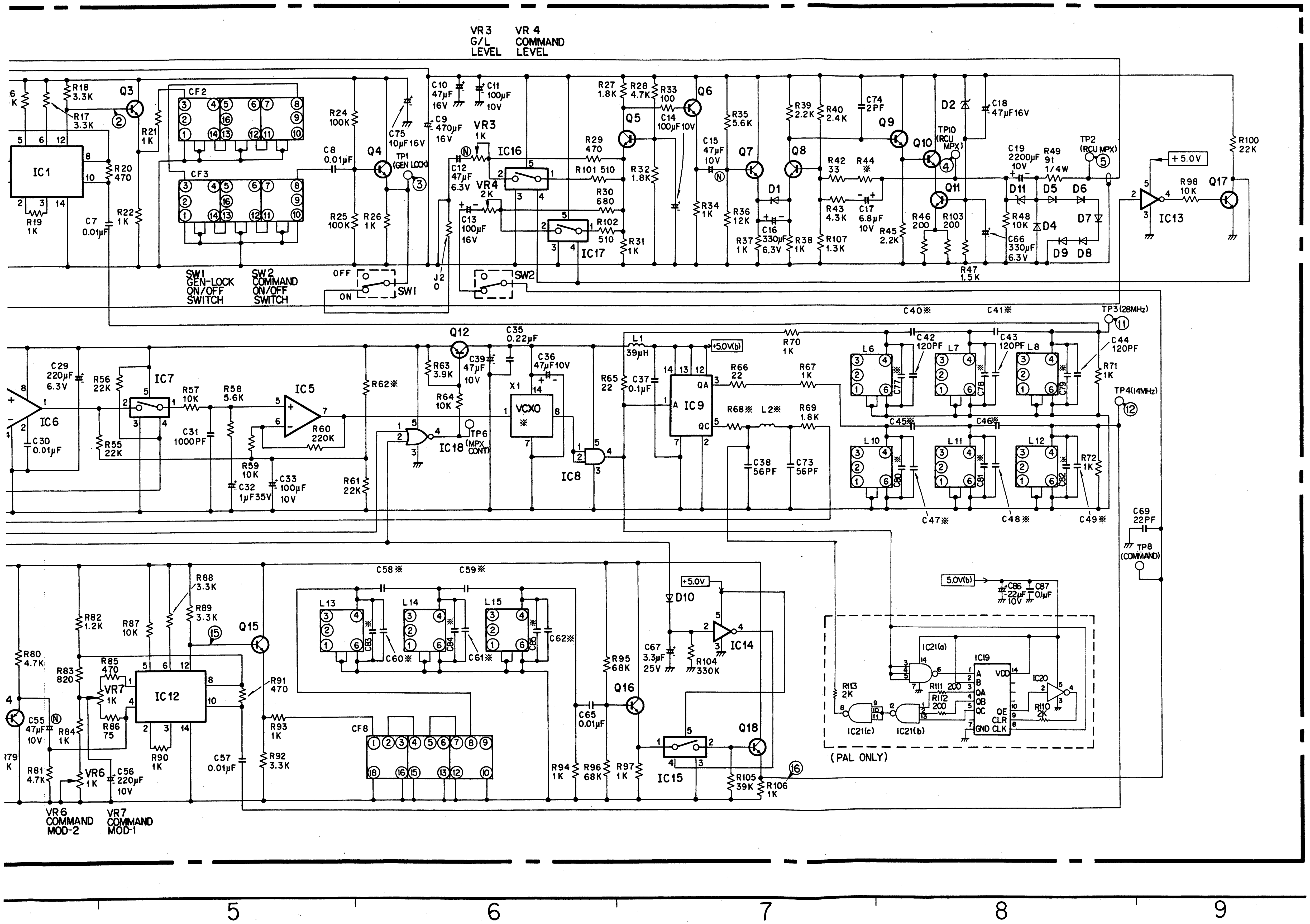
※	NTSC	PAL
C58	43 pF	27 pF
C236, 336, 436	43 pF	27 pF
C504	43 pF	27 pF
C604	180 pF	150 pF

SCHEMATIC DIAGRAM OF MODU


MODULATOR BOARD
CN1
+8.8V 1
+8.8V 2
+8.8V 3
+8.8V 4
+8.8V 5
+5.0V 6
+5.0V 7
+5.0V 8
+5.0V 9
+5.0V 10
-5.0V 11
-5.0V 12
-5.0V 13
RCU MPX 14
GROUND 15
VIDEO CONT 16
GEN-LOCK 17
GROUND 18
NOT USED 19
NOT USED 20
NOT USED 21
NOT USED 22
GROUND 23
VIDEO1 24
NOT USED 25
CP 26
NOT USED 27
VD 28
NOT USED 29
100V ON/OFF 30
NOT USED 31
MPX ON/OFF 32
NOT USED 33
NOT USED 34
NOT USED 35
TXD 36
NOT USED 37
NOT USED 38
NOT USED 39
NOT USED 40
NOT USED 41
NOT USED 42
NOT USED 43
NOT USED 44
NOT USED 45
GROUND 46
GROUND 47
GROUND 48
GROUND 49
GROUND 50
TO MOTHER BOARD ····CN 4
C70 470μF 10V
C71 470μF
C72 470μF 6.3V
VR1 G/L MOD-1
VR2 G/L MOD-2
Q1
Q2
Q3
Q13
Q14
IC1
IC2
IC3
IC4
IC5
IC6
IC10
IC11
D3
CF1
CF6
CF7
L9 47μH
VR5 AGC PULSE PHASE
VR5 20K
TP5 (VD)
TP9 (GROUND)
TP7 (AGC PULSE)
VR6 COMMAND MOD-2
VR7 COMMAND MOD-1
D
C
B
A
1
2
3
4

※	NTSC	PAL
X1 (VCXO)	28MHz	26.6MHz
R13	1k	820
R44	2.7k	2.2k
R62	3.6k	3.3k
R68	2k	NC
C40, 41	10PF	12PF
C45, 58	10PF	12PF
C46, 59	9PF	12PF
C47, 48, 49	120PF	100PF
C60, 61, 62	120PF	100PF
C77	NC	18PF
C78, 79	NC	22PF
C80, 83	NC	47PF
C81, 84	NC	33PF
C82, 85	NC	27PF
L2	33μH	27μH

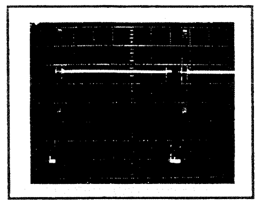
AM OF MODULATOR BOARD


VR3 G/L LEVEL
VR 4 COMMAND LEVEL
R18 3.3K
R17 3.3K
Q3
IC1
R19 1K
C7 0.01μF
R20 470
R21 1K
R22 1K
CF2
CF3
SW1 GEN-LOCK ON/OFF SWITCH
SW2 COMMAND ON/OFF SWITCH
R24 100K
R25 100K
R26 1K
C8 0.01μF
Q4
C75 10μF16V
TP1 (GEN LOCK)
OFF
ON
SW1
J2 0
C10 47μF 16V
C11 100μF 10V
C9 470μF 16V
VR3 1K
IC16
C12 47μF 6.3V
VR4 2K
C13 100μF 16V
IC17
SW2
R27 1.8K
R28 4.7K
R33 100
Q6
C14 100μF 10V
Q5
R29 470
R101 510
R30 680
R102 510
R31 1K
R32 1.8K
R35 5.6K
C15 47μF 10V
R34 1K
Q7
R36 12K
D1
C16 330μF 6.3V
R37 1K
R38 1K
Q8
R39 2.2K
R40 2.4K
C74 2PF
R42 33
R44 ※
R43 4.3K
C17 6.8μF 10V
R107 1.3K
R45 2.2K
Q9
Q10
TP10 (RCU MPX)
Q11
R46 200
R103 200
D2
C18 47μF16V
C19 2200μF 10V
R49 91 1/4W
TP2 (RCU MPX)
D11 D5 D6
R48 10K
D4
D7
C66 330μF 6.3V
D9 D8
R47 1.5K
+5.0V
R98 10K
Q17
IC13
R100 22K
C40※
C41※
TP3(28MHz)
C29 220μF 6.3V
IC6
C30 0.01μF
R56 22K
R55 22K
IC7
R57 10K
R58 5.6K
C31 1000PF
R59 10K
C32 1μF35V
C33 100μF 10V
IC5
R60 220K
R62※
R61 22K
Q12
R63 3.9K
C39 47μF 10V
C35 0.22μF
C36 47μF10V
X1
VCXO ※
R64 10K
TP6 (MPX CONT)
IC18
IC8
L1 39μH
+5.0V(b)
R65 22
C37 0.1μF
IC9
QA
QC
R66 22
R70 1K
R67 1K
R68※
L2※
R69 1.8K
C38 56PF
C73 56PF
L6 L7 L8
C42 120PF
C43 120PF
C44 120PF
C77 C78 C79
R71 1K
TP4(14MHz)
C45※ C46※
L10 L11 L12
C80 C81 C82
R72 1K
C47※ C48※ C49※
C69 22PF
TP8 (COMMAND)
R82 1.2K
R87 10K
R88 3.3K
R89 3.3K
Q15
R80 4.7K
R83 820
R85 470
VR7 1K
R86 75
IC12
R84 1K
C55 47μF 10V
R90 1K
R91 470
R93 1K
R92 3.3K
C57 0.01μF
R81 4.7K
VR6 1K
C56 220μF 10V
VR6 COMMAND MOD-2
VR7 COMMAND MOD-1
C58※ C59※
L13 L14 L15
C83 C84 C85
C60※ C61※ C62※
CF8
C65 0.01μF
R94 1K
R95 68K
R96 68K
Q16
R97 1K
D10
+5.0V
C67 3.3μF 25V
R104 330K
IC14
IC15
Q18
R105 39K
R106 1K
5.0V(b)
C86 22μF 10V
C87 0.1μF
IC21(a)
IC19
IC20
R113 2K
R111 200
R112 200
R110 2K
IC21(c)
IC21(b)
(PAL ONLY)
5
6
7
8
9

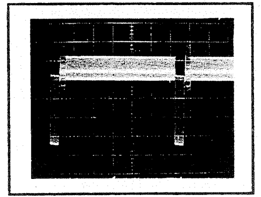
⟨Index⟩
MODULATOR BOARD

IC1	C4
IC2	B3
IC3	B3
IC4	B3
IC5	B4, B5
IC6	B4
IC7	B5
IC8	B6
IC9	B7
IC10	A3
IC11	A3
IC12	A5
IC13	C9
IC14	B7
IC15	A7
IC16	C6
IC17	C6
IC18	B6
IC19	A8
IC20	A8
IC21	A8
Q1	C3
Q2	C4
Q3	D5
Q4	C6
Q5	C7
Q6	D7
Q7	C7
Q8	C7
Q9	C8
Q10	C8
Q11	C8
Q12	C6
Q13	A3
Q14	A4
Q15	A5
Q16	A7
Q17	C9
Q18	A7
D1	C7
D2	D8
D3	B3
D4	C8
D5	C8
D6	C8
D7	C8
D8	C8
D9	C8
D10	B7
D11	C8

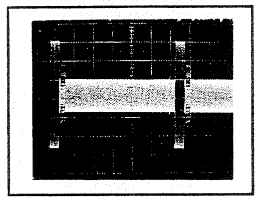
1. 10µss/DIV 0.2V/DIV



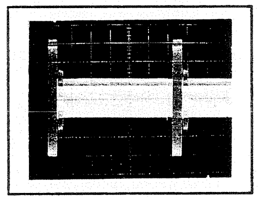
2. 10µs/DIV 50mV/DIV



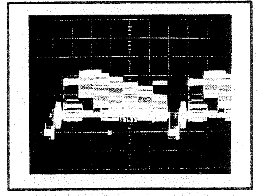
3. 10µs/DIV 50mV/DIV



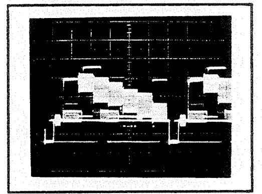
4. 10µs/DIV 0.2V/DIV



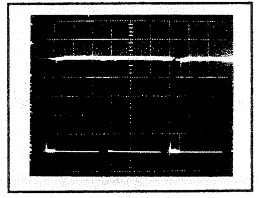
5. 10µs/DIV 0.5V/DIV



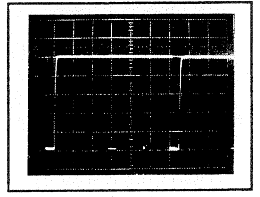
6. 10µs/DIV 0.5V/DIV



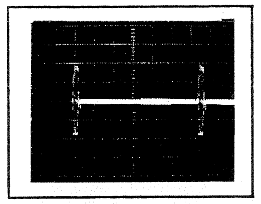
7. 10µsDIV /1V/DIV



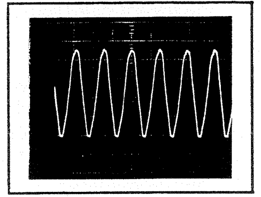
8. 10µs/DIV 1V/DIV



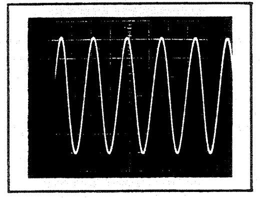
9. 10µs/DIV 50mV/DIV



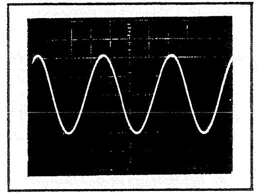
10. 0.2µs/DIV 0.1V/DIV



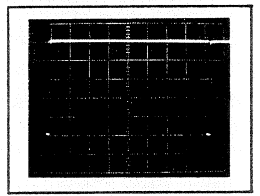
11. 20nµs/DIV 0.1V/DIV



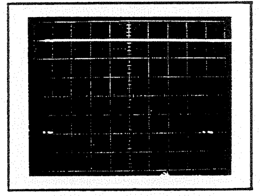
12. 20nµs/DIV 0.2V/DIV



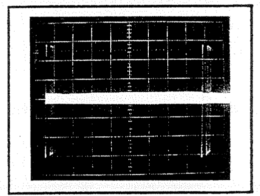
13. 2ms/DIV 1V/DIV



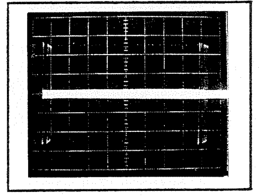
14. 2ms/DIV 1V/DIV



15. 2ms/DIV 0.1V/DIV



16 2ms/DIV 50mV/DIV



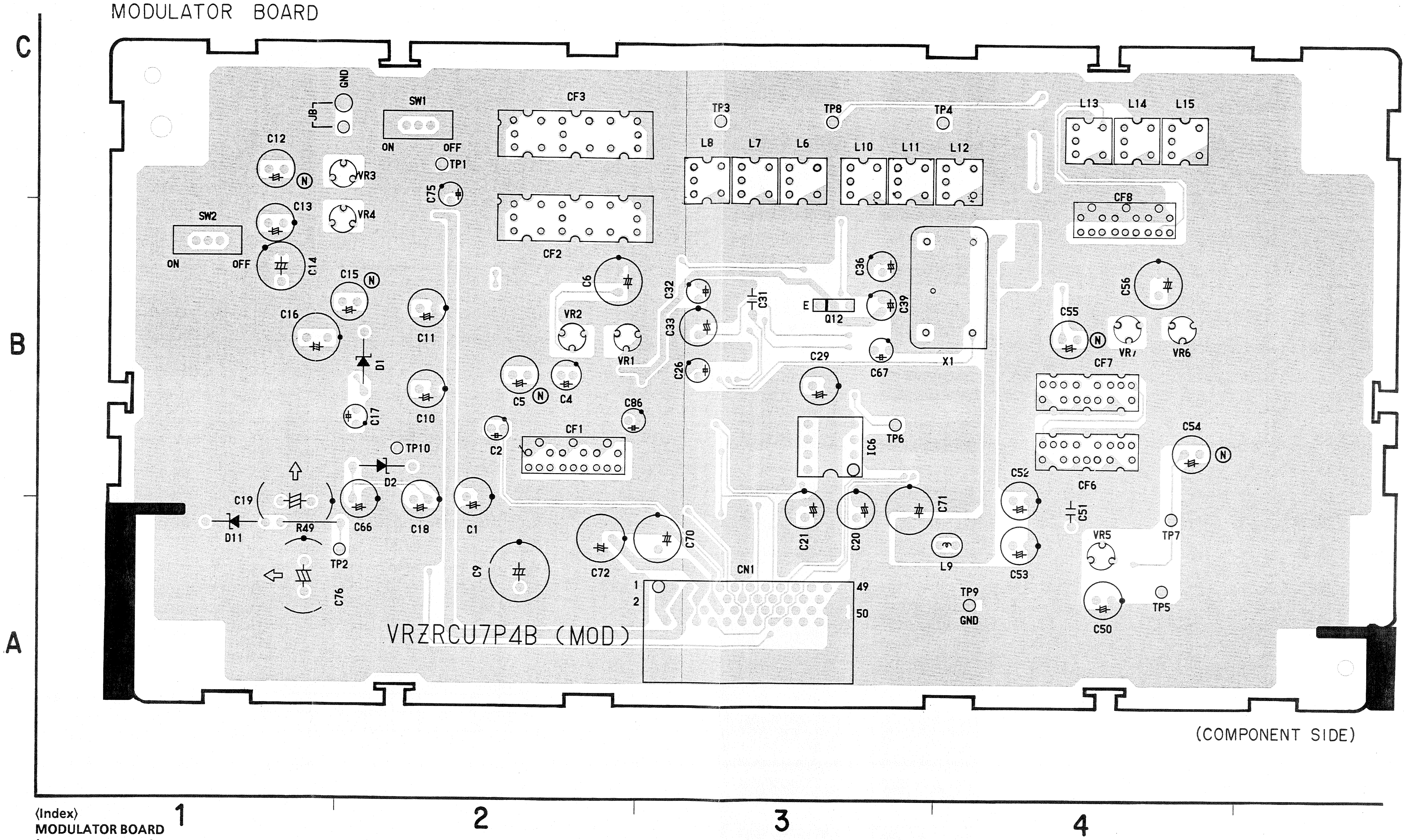
(Voltages)

	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	IC9
Pin 1	2.6	4.6	0	2.5	2.5	4.2	4.2	1.4	3.1
2	1.9	2.4	4.6	2.5	2.5	2.5	4.2	1.4	0
3	1.6	4.9	0	0	2.5	1.8	0	0	1.9
4	2.3	0	0.4	0.8	0	0	0.8	3.2	4.7
5	1.1	4.6	5.0	5.0	4.2	1.8	5.0	4.9	1.0
6	6.2	1.2			4.2	2.5			1.6
7	0	2.5			2.7	2.5			0
8	5.1	5.0			5.0	5.0			0
9	0								0
10	5.9								0
11	0								0
12	0								4.9
13									4.9
14									4.9
15									
16									

	B	C	E
Q1	4.4	8.8	3.7
2	4.3	8.8	3.7
3	5.9	8.8	5.1
4	3.1	8.8	0
5	2.4	5.7	1.7
6	5.7	8.8	4.9
7	5.7	8.8	5.0
8	3.4	6.1	2.7
9	6.1	8.8	5.4
10	5.4	8.8	4.7
11	2.7	4.7	1.9
12	4.3	4.9	5.0
13	7.7	8.7	7.0
14	3.4	0	4.2
15	6.0	8.7	5.2
16	4.0	8.7	3.3
17	0	8.8	0
18	3.3	8.7	2.7

	IC10	IC11	IC12	IC13	IC14	IC15	IC16	IC17	IC10
Pin 1	0	4.9	2.5	0	0	3.3	1.7	1.7	0
2	0.1	5.0	1.8	0	0	3.3	0	1.7	0
3	0	0	1.8	0	0	0	0	0	0
4	0	5.0	2.5	0	5.0	5.0	0	8.8	0.1
5	0	0	1.1	5.0	5.0	5.0	8.8	8.8	5.0
6	0		0						
7	5.0		0						
8	0		5.1						
9	4.9		0						
10	0		5.1						
11	4.9		0						
12	0		6.0						
13	5.0		0						
14	4.9		0						
15	0								
16	5.0								

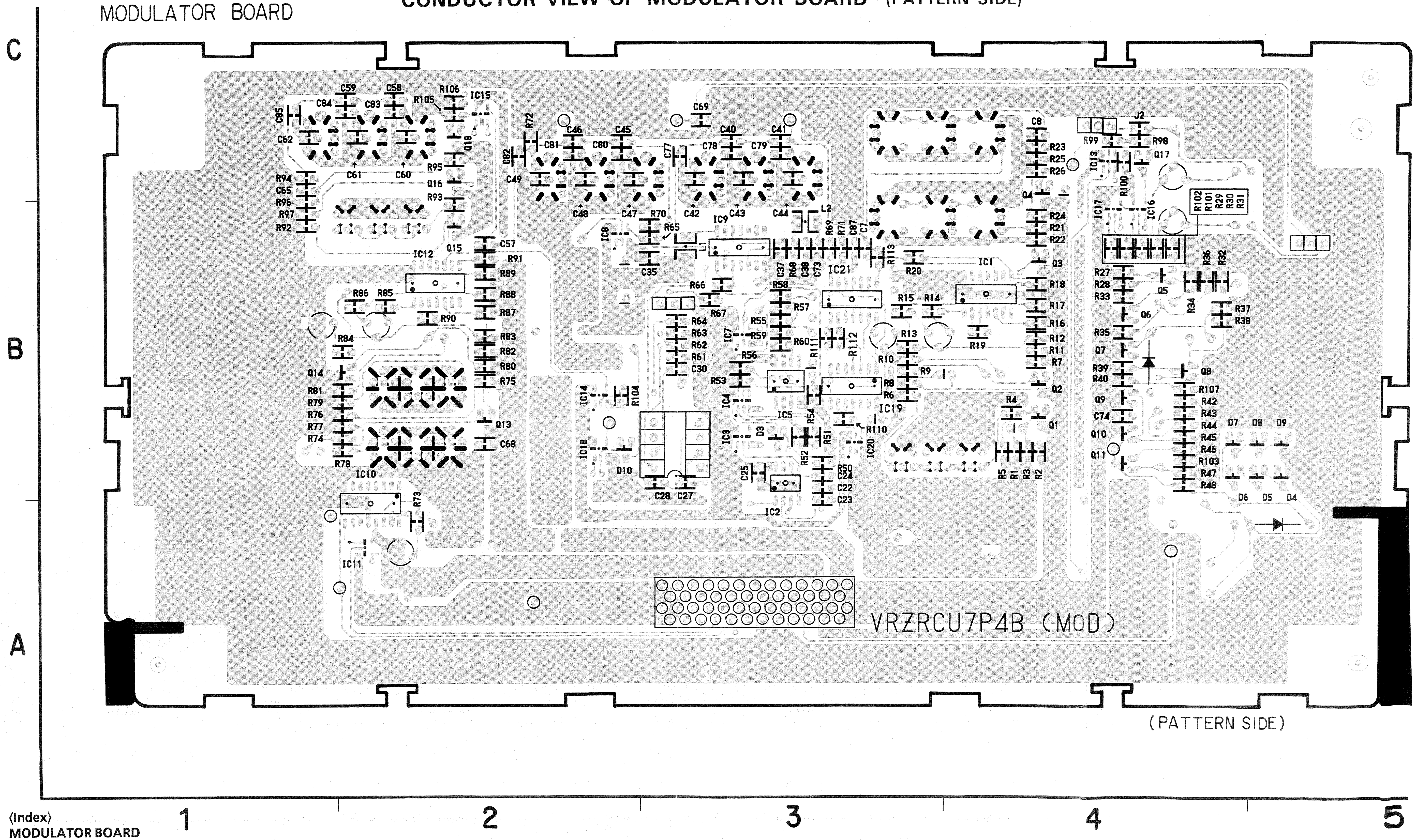
CONDUCTOR VIEW OF MODULATOR BOARD (COMPONENT SIDE)


MODULATOR BOARD
C
B
A
1
2
3
4
GND
JB
SW1
ON
OFF
TP1
CF3
CF2
TP3
TP8
TP4
L8
L7
L6
L10
L11
L12
L13
L14
L15
CF8
C12
C13
C14
C15
C16
VR3
VR4
SW2
C75
C11
C10
D1
C17
TP10
D2
C19
D11
R49
C66
C18
C1
C2
TP2
C76
C6
VR2
VR1
C5
C4
C86
CF1
C9
C72
C70
C32
C33
C26
C31
E
Q12
C36
C39
C67
C29
X1
IC6
TP6
C21
C20
C71
L9
CN1
1
2
49
50
TP9
GND
C56
C55
VR7
VR6
CF7
CF6
C54
C52
C51
C53
VR5
TP7
TP5
C50
VRZRCU7P4B (MOD)
(COMPONENT SIDE)

(Index)
MODULATOR BOARD (COMPONENT SIDE)

IC6	B3
Q12	B3
D1	B2
D2	B2
D11	A1

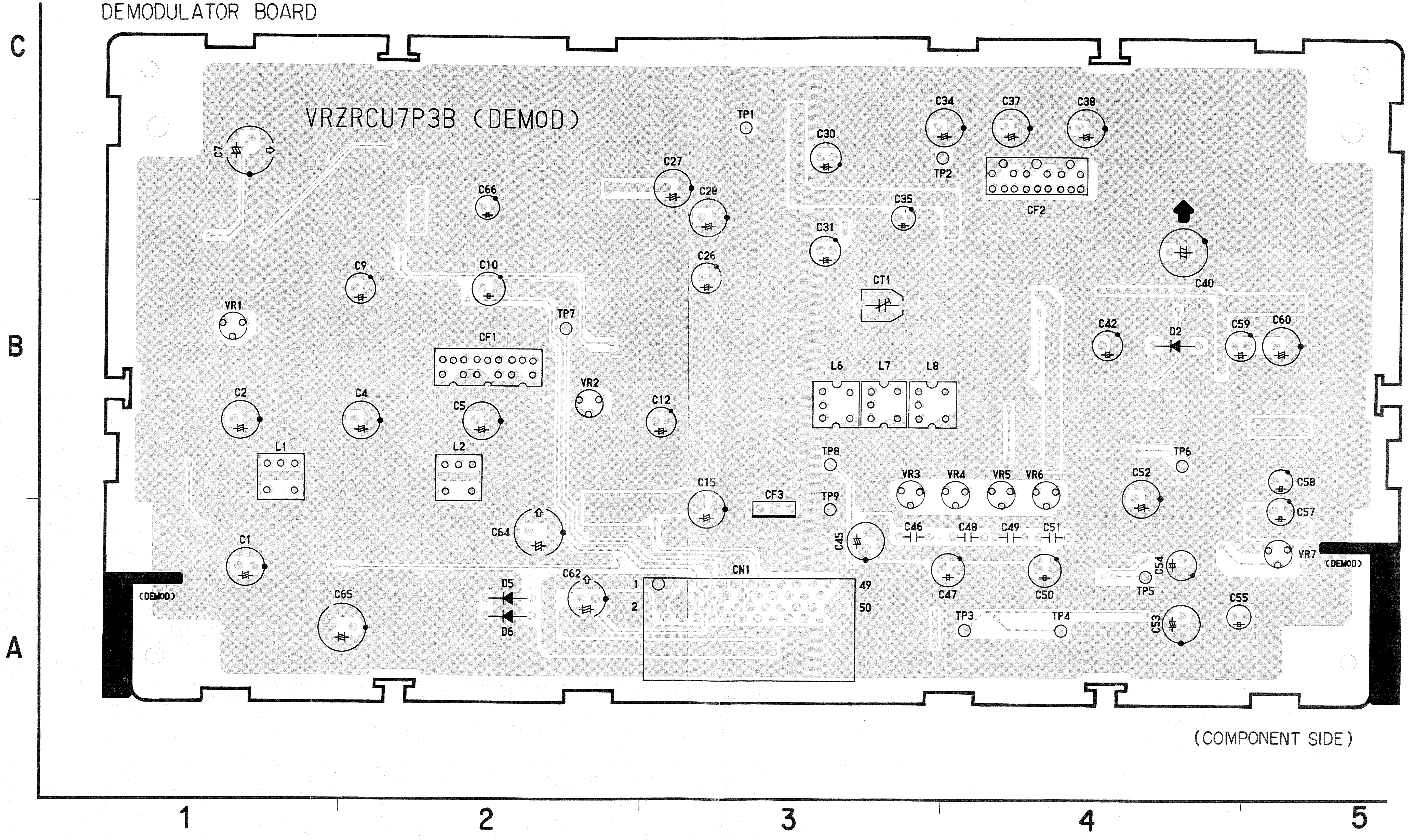
CONDUCTOR VIEW OF MODULATOR BOARD (PATTERN SIDE)


MODULATOR BOARD
C
B
A
1
2
3
4
5
C59
C58
R106
IC15
C84
C83
R105
C85
C62
Q18
C61
C60
R95
Q16
R93
R94
C65
R96
R97
R92
R72
C82
C81
C49
C46
C80
C45
C77
C69
C78
C40
C79
C41
C48
C47
R70
R65
C42
C43
IC9
C44
L2
IC8
L1
C35
R69
R71
C87
C7
R113
C37
R68
C38
C73
IC21
R20
IC1
C8
R23
R25
R26
Q4
R24
R21
R22
Q3
R18
R17
R16
R12
R11
R7
Q2
Q1
J2
R99
R98
IC13
Q17
R100
IC17
IC16
R102
R101
R29
R30
R31
R36
R32
R27
R28
R33
Q5
Q6
R34
R37
R38
R35
Q7
R39
R40
Q8
Q9
R107
R42
R43
C74
R44
Q10
R45
Q11
R46
R103
R47
R48
D7
D8
D9
D6
D5
D4
IC12
Q15
C57
R91
R89
R88
R87
R86
R85
R90
R83
R82
R80
R75
R84
Q14
R81
R79
R76
R77
R74
R78
Q13
C68
IC10
R73
IC11
R66
R67
R64
R63
R62
R61
C30
R58
R57
R55
R59
IC7
R56
R60
R111
R112
R15
R14
R13
R19
R10
R9
R53
R8
R6
IC19
IC14
R104
IC18
D10
C28
C27
IC4
IC5
R54
R110
IC3
D3
R52
R51
IC20
C25
R50
C24
C22
C23
IC2
R4
R5
R1
R3
R2
VRZRCU7P4B (MOD)
(PATTERN SIDE)

⟨Index⟩
MODULATOR BOARD
(PATTERN SIDE)

IC1	B4	IC7	B3	IC12	A2	IC17	B4	Q1	B4	Q6	B4	Q11	B4	Q17	C4	D6	B4
IC2	B3	IC8	B2	IC13	C4	IC18	B2	Q2	B4	Q7	B4	Q13	B2	Q18	C2	D7	B4
IC3	B3	IC9	B3	IC14	B2	IC19	B3	Q3	B4	Q8	B4	Q14	B2	D3	B3	D8	B5
IC4	B3	IC10	A2	IC15	C2	IC20	B3	Q4	C4	Q9	B4	Q15	B2	D4	B5	D9	B5
IC5	B3	IC11	A2	IC16	B4	IC21	B3	Q5	B4	Q10	B4	Q16	C2	D5	B5	D10	B2

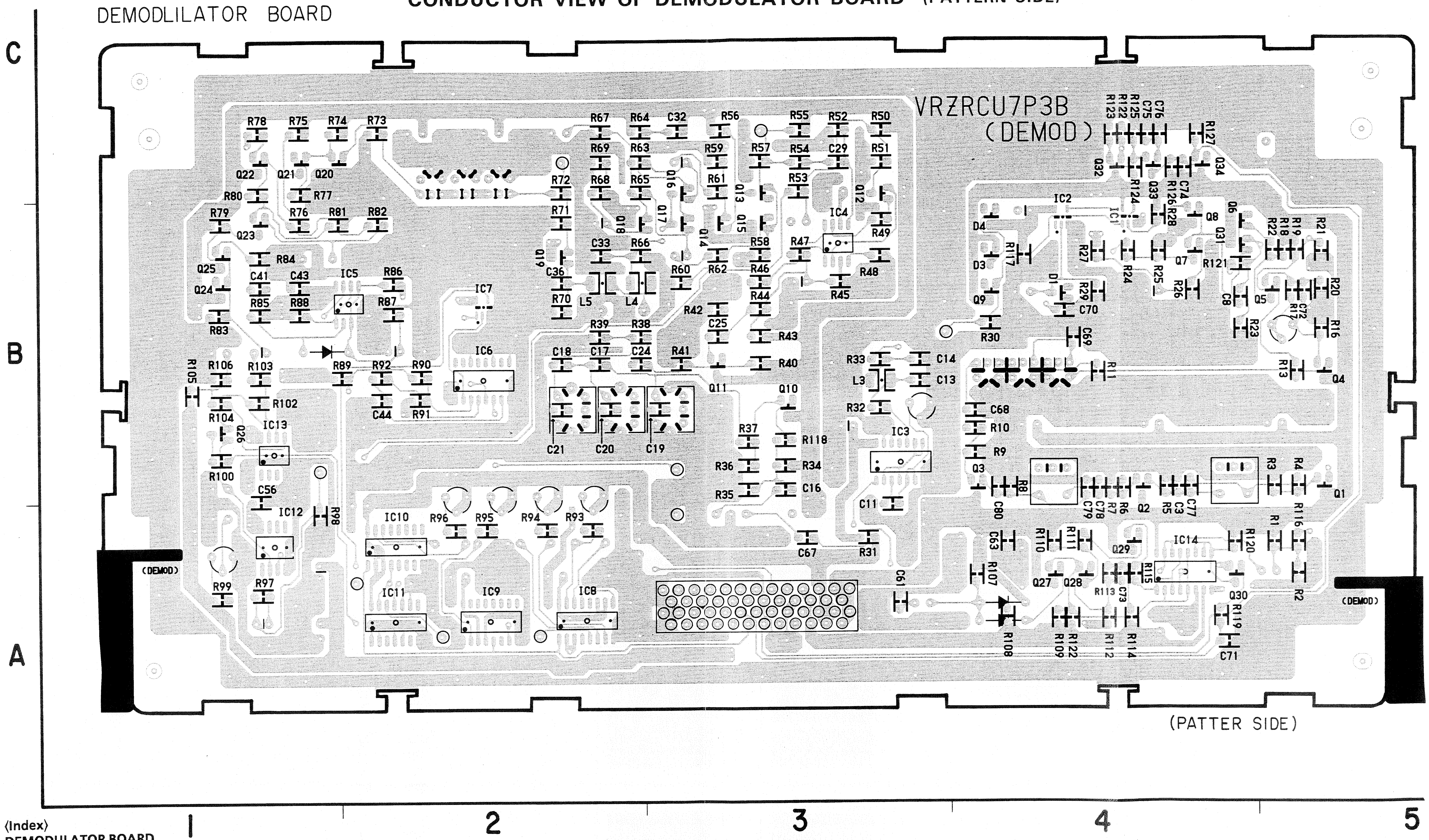
CONDUCTOR VIEW OF DEMODULATOR BOARD (COMPONENT SIDE)


DEMODULATOR BOARD
VRZRCU7P3B (DEMOD)
C
B
A
1
2
3
4
5
C7
TP1
C27
C28
C30
C34
C37
C38
TP2
CF2
C35
C31
C66
C26
C40
C9
C10
CT1
VR1
TP7
C42
D2
C59
C60
CF1
L6
L7
L8
VR2
C2
C4
C5
C12
L1
L2
TP8
TP6
VR3
VR4
VR5
VR6
C52
C58
C15
CF3
TP9
C57
C64
C46
C48
C49
C51
C45
VR7
(DEMOD)
C1
CN1
1
2
49
50
C62
C47
C50
C54
TP5
D5
D6
C65
(DEMOD)
C55
TP3
TP4
C53
(COMPONENT SIDE)

⟨Index⟩
DEMODULATOR BOARD
(COMPONENT SIDE)

D2	B4
D5	A2

CONDUCTOR VIEW OF DEMODULATOR BOARD (PATTERN SIDE)


DEMODLILATOR BOARD
VRZRCU7P3B
(DEMOD)
(DEMOD)
(DEMOD)
(PATTER SIDE)
C
B
A
1
2
3
4
5
R78
R75
R74
R73
Q22
Q21
Q20
R80
R77
R79
R76
R81
R82
Q23
R84
Q25
Q24
C41
C43
IC5
R86
R85
R88
R87
R83
IC7
IC6
R105
R106
R103
R89
R92
R90
R102
C44
R91
R104
Q26
IC13
R100
C56
IC12
R98
R99
R97
IC10
R96
R95
R94
R93
IC11
IC9
IC8
R67
R64
C32
R56
R55
R52
R50
R69
R63
R59
R57
R54
C29
R51
R72
R68
R65
Q16
R61
Q13
R53
Q12
R71
Q18
Q17
Q15
IC4
R49
Q14
Q19
C33
R66
R58
R47
C36
R60
R62
R46
R48
R70
L5
L4
R44
R45
R42
R39
R38
C25
R43
C18
C17
C24
R41
R40
Q11
Q10
C21
C20
C19
R37
R118
R36
R34
R35
C16
C67
R31
R33
C14
L3
C13
R32
IC3
C11
C61
R123
R122
R125
C75
C76
R127
Q32
Q34
R124
Q33
R126
C74
R28
IC2
IC1
Q8
Q6
D4
Q31
R22
R18
R19
R21
R117
R27
R24
R25
Q7
R121
D3
D1
R29
R26
C8
Q5
R20
R17
C72
Q9
C70
R23
R16
R30
C69
R11
R13
Q4
C68
R10
R9
Q3
R8
C80
C78
C79
R7
R6
Q2
C3
R5
C77
R3
R4
Q1
R116
R1
C63
R110
R111
Q29
IC14
R120
R107
Q27
Q28
R115
R113
C73
Q30
R2
R119
R108
R109
R122
R112
R114
C71

⟨Index⟩
DEMODULATOR BOARD
(PATTERN SIDE)

IC1	B4	IC6	B2	IC11	A2	Q2	B4	Q7	B4	Q12	C3	Q17	B3	Q22	C1	Q27	A4	D1	B4
IC2	B4	IC7	B2	IC12	A1	Q3	B4	Q8	B4	Q13	C3	Q18	B2	Q23	B1	Q28	A4	D3	B4
IC3	B3	IC8	A2	IC13	B1	Q4	B5	Q9	B4	Q14	B3	Q19	B2	Q24	B1	Q29	A4	D4	B4
IC4	B3	IC9	A2	IC14	A4	Q5	B5	Q10	B3	Q15	B3	Q20	C1	Q25	B1	Q30	A4		
IC5	B2	IC10	A2	Q1	B5	Q6	B4	Q11	B3	Q16	C3	Q21	C1	Q26	B1	Q31	B4		

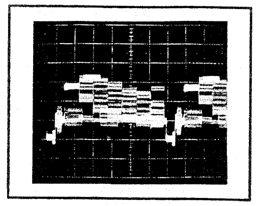
(Voltages)

	IC1	IC2	IC3	IC4	IC5	IC6	IC7
Pin 1	3.0	0	4.6	4.8	0.2	5.0	5.0
2	3.0	0	4.9	4.1	3.0	5.0	4.9
3	0	0	0.4	0	2.6	4.0	0
4	7.6	7.6	4.9	6.4	0	4.0	4.9
5	8.8	8.6	0.1	6.5	2.6	5.0	5.0
6			0.1	8.8	0.2	5.0	
7			0	4.1	5.9	5.0	
8			4.9	4.8	8.8	0	
9			4.9			0	
10			0.1			0	
11			5.0			0	
12			0			0	
13			0			0	
14			5.0			0	
15						0	
16						0	

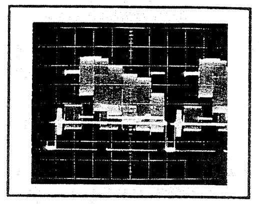
	IC8	IC9	IC10	IC11	IC12	IC13	IC14
Pin 1	4.0	0	4.9	0	1.8	8.3	2.7
2	5.0	4.9	5.0	0	3.6	1.3	1.1
3	5.0	5.0	5.0	0	3.6	1.5	2.7
4	4.9	0	5.0	0	0	0	1.1
5	0	4.9	0	0	0	2.0	1.1
6	0	0.1	0	0	0	2.0	0
7	5.0	4.9	0.1	0	7.4	8.8	4.8
8	0	0	0	0	8.8		0
9	0.1	0	0	0			0
10	5.0	5.0	0	0			0
11	5.0	0	0	5.0			0
12	5.0	0	5.0	5.0			1.1
13	0.1	0	0	5.0			2.7
14	0	5.0	0	5.0			1.1
15	4.6	0	4.8				1.1
16	5.0	5.0	5.0				8.8

	B	C	E
Q1	7.4	8.8	6.8
2	6.4	8.8	5.8
3	5.5	8.8	4.8
4	3.9	8.8	3.2
5	3.6	7.4	2.9
6	7.4	8.8	6.7
7	1.8	0.1	2.2
8	2.2	0	2.9
9	2.9	8.8	2.3
10	2.8	8.8	2.1
11	4.4	8.8	3.7
12	4.1	3.8	4.1
13	3.3	5.9	2.5
14	5.9	8.8	5.1
15	2.5	8.8	1.8
16	7.1	5.0	7.8
17	7.1	5.0	7.8
18	7.6	8.8	6.9
19	5.0	8.8	4.3
20	2.1	0	2.8
21	2.8	4.5	0
22	4.5	8.8	3.8
23	4.4	6.4	3.6
24	6.3	8.8	5.7
25	6.4	0	5.7
26	3.6	8.8	2.0
27	0	3.4	1.1
28	1.8	8.8	0
29	3.4	8.8	2.7
30	0.6	0	0
31	6.7	8.8	6.0
32	6.0	8.8	5.4
33	5.7	6.8	5.2
34	6.8	8.8	6.2

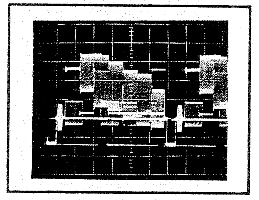
1. 10μs/DIV 0.2V/DIV



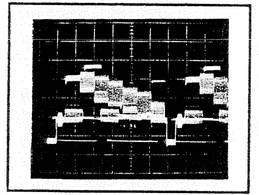
2. 10μs/DIV 0.2V/DIV



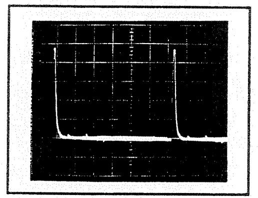
3. 10μs/DIV 0.2V/DIV



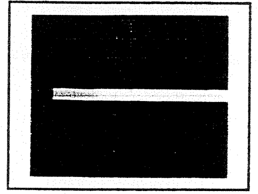
4. 10μsDIV /0.5V/DIV



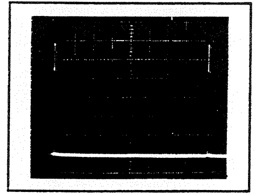
5. 10μs/DIV 0.5V/DIV



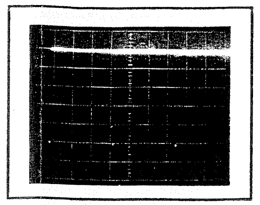
6. 5ms/DIV 50mV/DIV



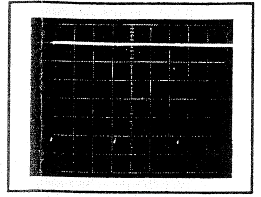
7. 2ms/DIV 0.1V/DIV



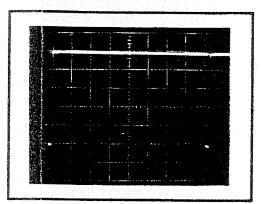
8. 5ms/DIV 1V/DIV



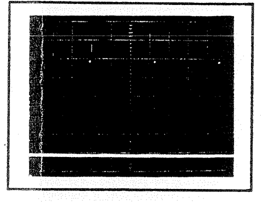
9. 5ms/DIV 0.2V/DIV



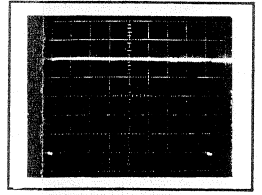
10. 5ms/DIV 1V/DIV



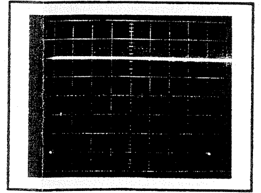
11. 5ms/DIV 1V/DIV



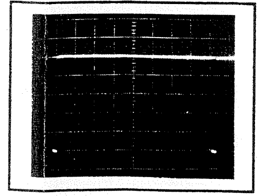
12. 2ms/DIV 1V/DIV



13. 2ms/DIV 1V/DIV



14. 2ms/DIV 1V/DIV

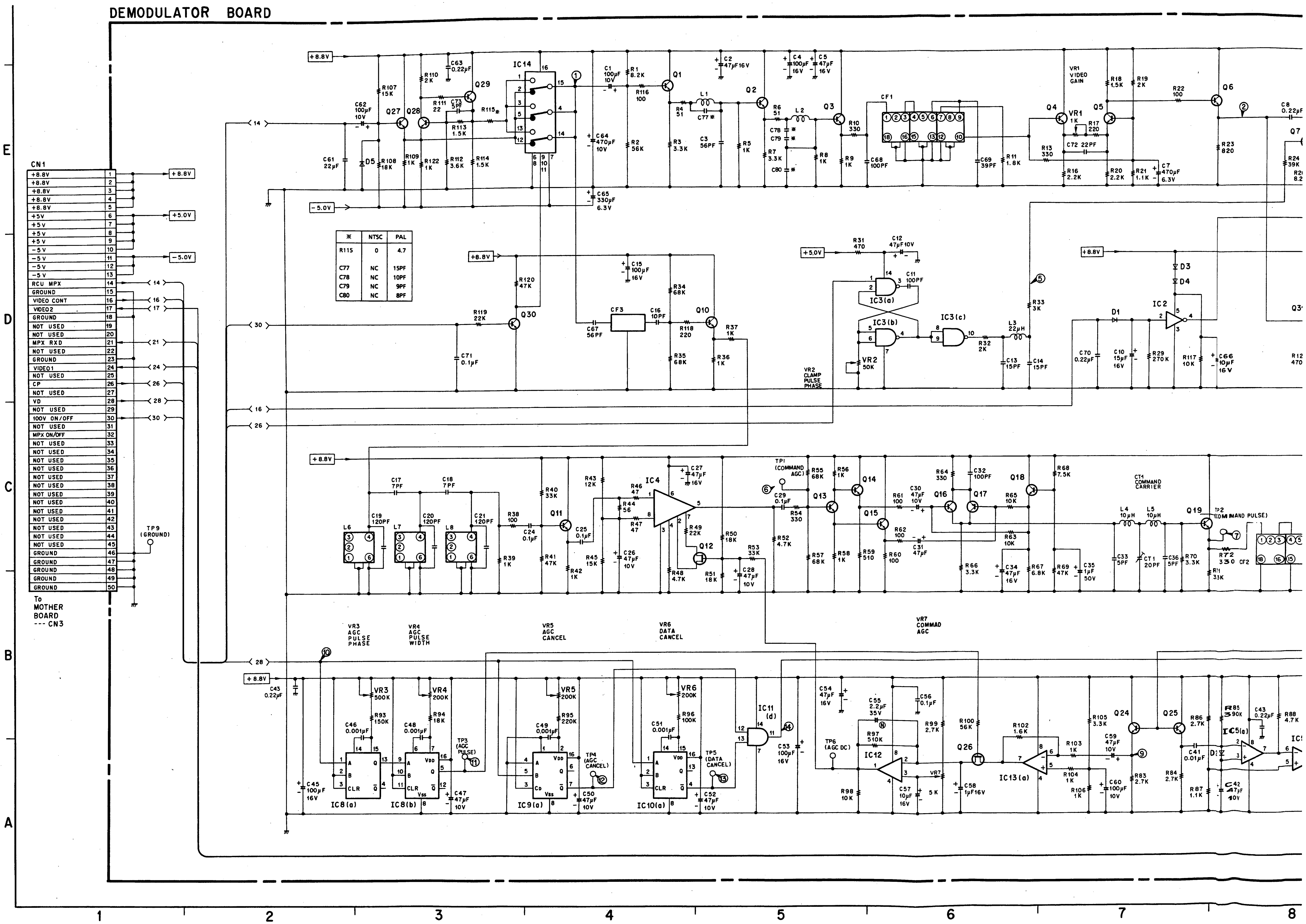


〈Index〉

DEMODULATOR BOARD

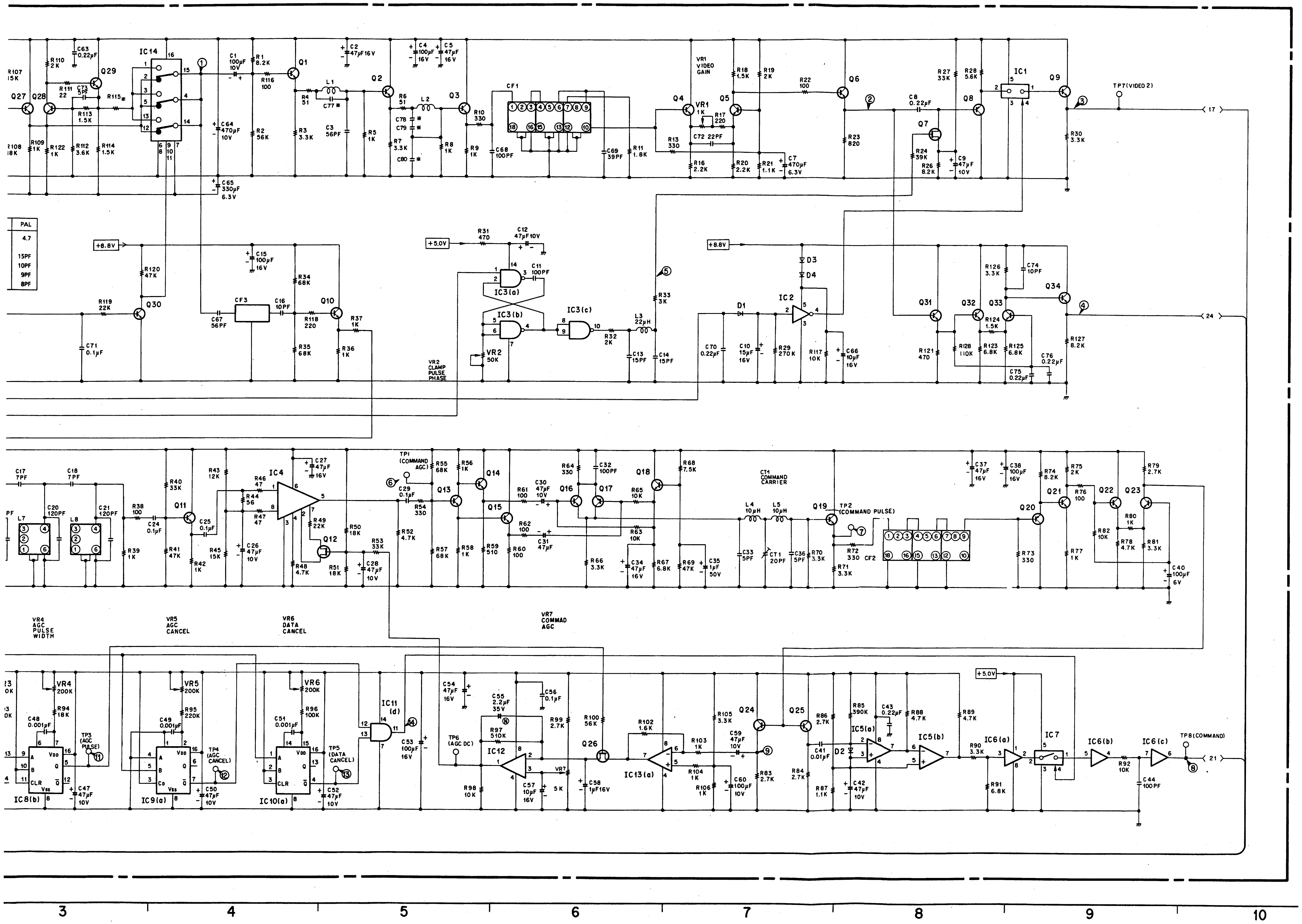
IC1	E8	Q32	D8
IC2	D7	Q33	D8
IC3	D6	Q34	D9
IC4	C4	D1	D7
IC5	A8	D2	A8
IC6	A9	D3	D7
IC7	A9	D4	D7
IC8	A3	D5	E3
IC9	A4		
IC10	A4		
IC11	A5		
IC12	A6		
IC13	A6		
IC14	E4		
Q1	E4		
Q2	E5		
Q3	E5		
Q4	E7		
Q5	E7		
Q6	E7		
Q7	E8		
Q8	E8		
Q9	E9		
Q10	D5		
Q11	C4		
Q12	C4		
Q13	C5		
Q14	C5		
Q15	C6		
Q16	C6		
Q17	C6		
Q18	C6		
Q19	C7		
Q20	C9		
Q21	C9		
Q22	C9		
Q23	C9		
Q24	B7		
Q25	B7		
Q26	A6		
Q27	E3		
Q28	E3		
Q29	E3		
Q30	D3		
Q31	D8		

SCHEMATIC DIAGRAM OF DEMODULATOR BOARD

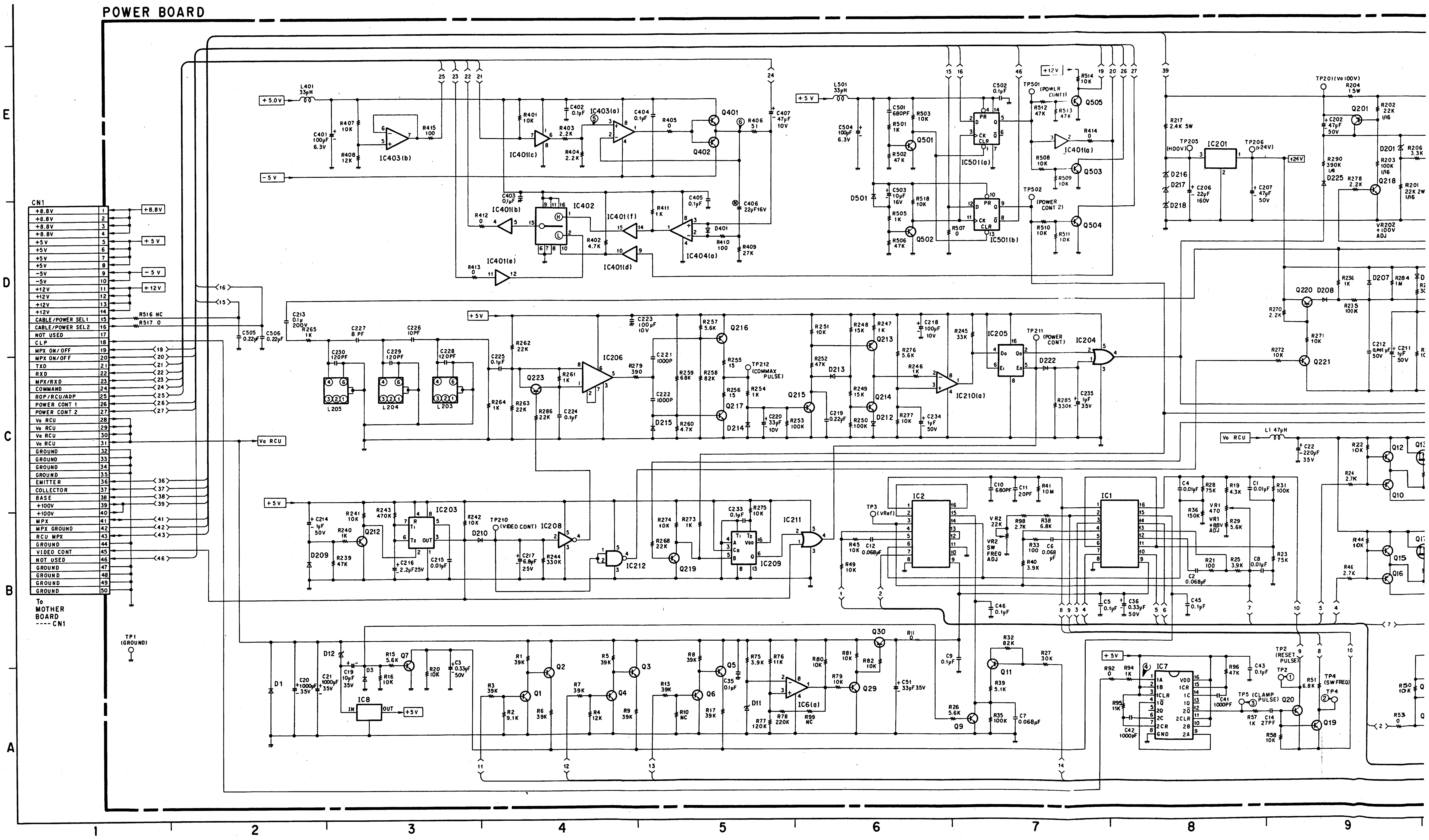

DEMODULATOR BOARD
CN1
+8.8V 1
+8.8V 2
+8.8V 3
+8.8V 4
+8.8V 5
+5V 6
+5V 7
+5V 8
+5V 9
-5V 10
-5V 11
-5V 12
-5V 13
RCU MPX 14
GROUND 15
VIDEO CONT 16
VIDEO2 17
GROUND 18
NOT USED 19
NOT USED 20
MPX RXD 21
NOT USED 22
GROUND 23
VIDEO1 24
NOT USED 25
CP 26
NOT USED 27
VD 28
NOT USED 29
100V ON/OFF 30
NOT USED 31
MPX ON/OFF 32
NOT USED 33
NOT USED 34
NOT USED 35
NOT USED 36
NOT USED 37
NOT USED 38
NOT USED 39
NOT USED 40
NOT USED 41
NOT USED 42
NOT USED 43
NOT USED 44
NOT USED 45
GROUND 46
GROUND 47
GROUND 48
GROUND 49
GROUND 50
To MOTHER BOARD --- CN3
TP9 (GROUND)
+8.8V
+5.0V
-5.0V
IC14
Q27
Q28
Q29
Q1
Q2
Q3
Q4
Q5
Q6
Q7
CF1
VR1 VIDEO GAIN
IC3(a)
IC3(b)
IC3(c)
VR2 CLAMP PULSE PHASE
IC2
D1
D3
D4
D5
Q10
Q30
CF3
IC4
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
L6
L7
L8
TP1 (COMMAND AGC)
TP2 (COMMAND PULSE)
CT1 COMMAND CARRIER
CF2
VR3 AGC PULSE PHASE
VR4 AGC PULSE WIDTH
VR5 AGC CANCEL
VR6 DATA CANCEL
VR7 COMMAD AGC
IC8(a)
IC8(b)
IC9(a)
IC10(a)
IC11(d)
IC12
IC13(a)
IC5(a)
Q24
Q25
Q26
TP3 (AGC PULSE)
TP4 (AGC CANCEL)
TP5 (DATA CANCEL)
TP6 (AGC DC)
A
B
C
D
E
1
2
3
4
5
6
7
8

※	NTSC	PAL
R115	0	4.7
C77	NC	15PF
C78	NC	10PF
C79	NC	9PF
C80	NC	8PF

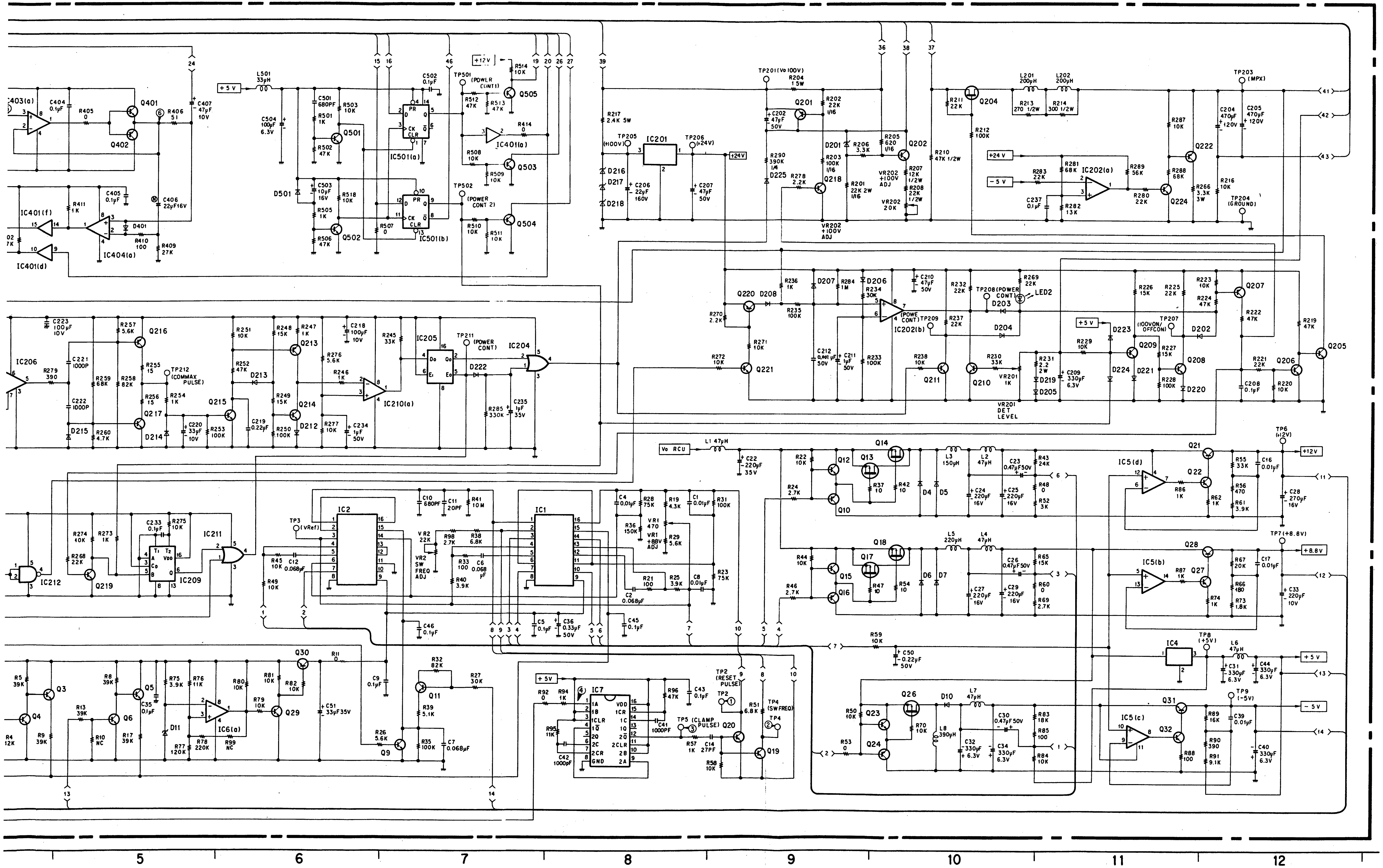
SCHEMATIC DIAGRAM OF DEMODULATOR BOARD


IC14
Q27
Q28
Q29
Q30
Q10
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
IC1
CF1
CF3
VR1 VIDEO GAIN
TP7(VIDEO 2)
PAL
4.7
15PF
10PF
9PF
8PF
+8.8V
+5.0V
IC3(a)
IC3(b)
IC3(c)
VR2 CLAMP PULSE PHASE
D1
D3
D4
IC2
Q31
Q32
Q33
Q34
IC4
Q11
Q12
Q13
Q14
Q15
Q16
Q17
Q18
Q19
Q20
Q21
Q22
Q23
TP1 (COMMAND AGC)
TP2 (COMMAND PULSE)
CT1 COMMAND CARRIER
CF2
L7
L8
VR4 AGC PULSE WIDTH
VR5 AGC CANCEL
VR6 DATA CANCEL
VR7 COMMAD AGC
IC8(b)
IC9(a)
IC10(a)
IC11 (d)
TP3 (AGC PULSE)
TP4 (AGC CANCEL)
TP5 (DATA CANCEL)
TP6 (AGC DC)
IC12
Q26
IC13(a)
Q24
Q25
D2
IC5(a)
IC5(b)
IC6(a)
IC7
IC6(b)
IC6(c)
TP8(COMMAND)
17
24
21
3
4
5
6
7
8
9
10

SCHEMATIC DIAGRAM OF POWER BOARD


POWER BOARD
CN1
+8.8V 1
+8.8V 2
+8.8V 3
+8.8V 4
+5V 5
+5V 6
+5V 7
+5V 8
−5V 9
−5V 10
+12V 11
+12V 12
+12V 13
+12V 14
CABLE/POWER SEL1 15
CABLE/POWER SEL2 16
NOT USED 17
CLP 18
MPX ON/OFF 19
MPX ON/OFF 20
TXD 21
RXD 22
MPX/RXD 23
COMMAND 24
ROP/RCU/ADP 25
POWER CONT 1 26
POWER CONT 2 27
Vo RCU 28
Vo RCU 29
Vo RCU 30
Vo RCU 31
GROUND 32
GROUND 33
GROUND 34
GROUND 35
EMITTER 36
COLLECTOR 37
BASE 38
+100V 39
+8.8V 40
MPX 41
MPX GROUND 42
RCU MPX 43
GROUND 44
VIDEO CONT 45
NOT USED 46
GROUND 47
GROUND 48
GROUND 49
GROUND 50
To MOTHER BOARD ---- CN1
TP1 (GROUND)
+5.0V
−5V
+5V
+8.8V
+12V
IC403(a)
IC403(b)
IC401(a)
IC401(b)
IC401(c)
IC401(d)
IC401(e)
IC401(f)
IC402
IC404(a)
IC501(a)
IC501(b)
IC201
IC203
IC204
IC205
IC206
IC208
IC209
IC210(a)
IC211
IC212
IC2
IC1
IC6(a)
IC7
IC8
Q401
Q402
Q501
Q502
Q503
Q504
Q505
Q201
Q218
Q220
Q221
Q212
Q213
Q214
Q215
Q216
Q217
Q219
Q223
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q9
Q10
Q11
Q12
Q15
Q16
Q19
Q20
Q29
Q30
L203
L204
L205
TP201 (Vo 100V)
TP205 (H00V)
TP206 (+24V)
TP501 (POWER CONT1)
TP502 (POWER CONT 2)
TP210 (VIDEO CONT)
TP211 (POWER CONT)
TP212 (COMMAX PULSE)
TP3 (VRef)
TP2 (RESET PULSE)
TP4 (SW FREQ)
TP5 (CLAMP PULSE)
VR202 +100V ADJ
VR1 +88V ADJ
VR2 SW FREQ ADJ
Vo RCU
L1 47μH
1
2
3
4
5
6
7
8
9
E
D
C
B
A

SCHEMATIC DIAGRAM OF POWER BOARD



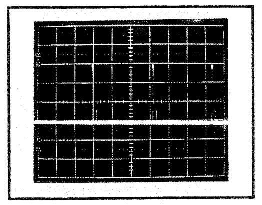
IC403(a)
Q401
Q402
C404 0.1μF
R405 0
R406 51
C407 47μF 10V
C406 22μF16V
IC401(f)
IC401(d)
IC404(a)
D401
R410 100
R409 27K
R411 1K
C405 0.1μF
+5 V
L501 33μH
C504 100μF 6.3V
C501 680PF
R501 1K
R502 47K
R503 10K
Q501
D501
C503 10μF 16V
R505 1K
R506 47K
R518 10K
Q502
R507 0
IC501(a)
IC501(b)
C502 0.1μF
TP501 (POWER CONT1)
TP502 (POWER CONT 2)
R512 47K
R513 47K
R514 10K
Q505
R414 0
IC401(a)
R508 10K
R509 10K
Q503
R510 10K
R511 10K
Q504
+12V
R217 2.4K 5W
D216
D217
D218
TP205 (H00V)
IC201
TP206 (+24V)
C206 22μF 160V
C207 47μF 50V
+24V
TP201 (Vo 100V)
R204 1.5W
Q201
C202 47μF 50V
R290 390K 1/4
D225
R278 2.2K
Q218
R202 22K 1/6
R203 100K 1/16
D201
R206 3.3K
R201 22K 2W 1/16
R205 620 1/16
Q202
R207 12K 1/2W
R208 22K 1/2W
VR202 +100V ADJ
VR202 20K
R210 47K 1/2W
R211 22K
Q204
R212 100K
L201 200μH
L202 200μH
R213 270 1/2W
R214 300 1/2W
+24 V
-5 V
R283 22K
R281 68K
IC202(a)
R289 56K
C237 0.1μF
R282 13K
R280 22K
R287 10K
R288 68K
Q222
Q224
R266 3.3K 3W
C204 470μF 120V
C205 470μF 120V
R216 10K
TP203 (MPX)
TP204 (GROUND)
41
42
43
Q220
D208
R270 2.2K
R236 1K
D207
R284 1M
D206
R234 30K
R235 100K
C210 47μF 50V
IC202(b)
TP209
R232 22K
R237 22K
TP208 (POWER CONT)
D203
R269 22K
LED2
D204
R271 10K
R272 10K
Q221
C212 0.001μF 50V
C211 1μF 50V
R233 100K
R238 10K
Q211
Q210
R230 33K
VR201 1K
R231 2.2 2W
D219
D205
C209 330μF 6.3V
VR201 DET LEVEL
+5 V
D223
R229 10K
Q209
D224
D221
R227 15K
R228 100K
TP207 (100VON/ OFFCON)
D202
Q208
D220
R226 15K
R225 22K
R223 10K
R224 47K
Q207
R222 47K
R221 22K
C208 0.1μF
R220 10K
Q206
R219 47K
Q205
C223 100μF 10V
C221 1000P
C222 1000P
IC206
R279 390
R259 68K
R258 82K
D215
R260 4.7K
R257 5.6K
Q216
R255 15
TP212 (COMMAX PULSE)
R256 15
R254 1K
Q217
D214
C220 33μF 10V
R253 100K
Q215
R251 10K
R252 47K
D213
C219 0.22μF
R248 15K
R247 1K
Q213
R249 15K
Q214
R250 100K
D212
R276 5.6K
R246 1K
R277 10K
C234 1μF 50V
C218 100μF 10V
R245 33K
IC210(a)
IC205
TP211 (POWER CONT)
IC204
D222
R285 330K
C235 1μF 35V
Vo RCU
L1 47μH
C22 220μF 35V
R22 10K
Q12
Q13
Q14
R37 10
R42 10
R24 2.7K
Q10
D4
D5
L3 150μH
L2 47μH
C23 0.47μF50V
R43 24K
C24 220μF 16V
C25 220μF 16V
R48 0
R52 3K
R44 10K
Q15
Q16
Q17
Q18
R46 2.7K
R47 10
R54 10
D6
D7
L5 220μH
L4 47μH
C26 0.47μF50V
R65 15K
C27 220μF 16V
C29 220μF 16V
R60 0
R69 2.7K
TP6 (+12V)
+12V
Q21
IC5(d)
Q22
R86 1K
R62 1K
R55 33K
R56 470
R61 3.9K
C16 0.01μF
C28 270μF 16V
TP7 (+8.8V)
+8.8V
Q28
IC5(b)
R87 1K
Q27
R74 1K
R67 20K
R66 180
R73 1.8K
C17 0.01μF
C33 220μF 10V
R274 10K
R273 1K
R268 22K
Q219
IC212
C233 0.1μF
R275 10K
IC209
IC211
TP3 (VRef)
IC2
R45 10K
C12 0.068μF
R49 10K
C10 680PF
C11 20PF
R41 10M
VR2 22K
VR2 SW FREQ ADJ
R98 2.7K
R38 6.8K
R33 100
C6 0.068 μF
R40 3.9K
IC1
C4 0.01μF
R28 75K
R19 4.3K
C1 0.01μF
R31 100K
R36 150K
VR1 470
VR1 +88V ADJ
R29 5.6K
R21 100
R25 3.9K
C8 0.01μF
R23 75K
C2 0.068μF
C46 0.1μF
C5 0.1μF
C36 0.33μF 50V
C45 0.1μF
R59 10K
C50 0.22μF 50V
IC4
TP8 (+5V)
L6 47μH
C31 330μF 6.3V
C44 330μF 6.3V
+5V
R5 39K
Q3
Q4
R4 12K
R9 39K
R13 39K
R8 39K
Q6
Q5
R10 NC
R17 39K
C35 0.1μF
D11
R75 3.9K
R76 11K
R77 120K
R78 220K
IC6(a)
R80 10K
R99 NC
R79 10K
Q29
R81 10K
R82 10K
Q30
R11 0
C51 33μF35V
C9 0.1μF
R26 5.6K
Q9
R32 82K
Q11
R39 5.1K
R35 100K
C7 0.068μF
R27 30K
+5V
R92 0
R94 1K
IC7
R95 11K
C42 1000pF
R96 47K
C43 0.1μF
C41 1000PF
TP2 (RESET PULSE)
TP5 (CLAMP PULSE)
R57 1K
C14 27PF
R58 10K
Q20
R51 6.8K
TP4 (SW FREQ)
Q19
R50 10K
Q23
R53 0
Q24
Q26
R70 10K
D10
L8 390μH
L7 47μH
C30 0.47μF50V
C32 330μF 6.3V
C34 330μF 6.3V
R83 18K
R85 100
R84 10K
TP9 (-5V)
-5V
IC5(c)
Q31
Q32
R88 100
R89 16K
R90 390
R91 9.1K
C39 0.01μF
C40 330μF 6.3V
5
6
7
8
9
10
11
12

⟨Index⟩

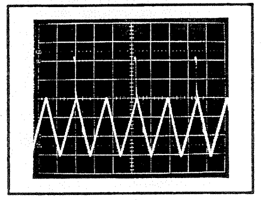
POWER BOARD

IC1	B8
IC2	B6
IC4	B11
IC5	A11, B11, C11
IC6	A5
IC7	A8
IC8	A3
IC201	E8
IC202	D10, E11
IC203	B3
IC204	C7
IC205	C7
IC206	C4
IC208	B4
IC209	B5
IC210	C6
IC211	B6
IC212	B4
IC401	D4, E4, E7
IC402	D4
IC403	E3, E4
IC404	D5
IC501	D7, E7
Q1	A4
Q2	A4
Q3	A4
Q4	A4
Q5	A5
Q6	A5
Q7	A3
Q9	A7
Q10	C9
Q11	A7
Q12	C9
Q13	C9
Q14	C10
Q15	B9
Q16	B9
Q17	B9
Q18	B10
Q19	A9
Q20	A9
Q21	C12
Q22	C12
Q23	A10
Q24	A10
Q26	A10
Q27	B12
Q28	B12
Q29	A6
Q30	B6
Q31	A11
Q32	A11
Q201	E9
Q202	E10
Q204	E10
Q205	D12
Q206	C12
Q207	D12
Q208	C11
Q209	D11
Q210	C10
Q211	C10
Q212	B3
Q213	D6
Q214	C6
Q215	C6
Q216	D5
Q217	C5
Q218	E9
Q219	B5
Q220	D9
Q221	C9
Q222	E11
Q223	C4
Q224	E11
Q401	E5
Q402	E5
Q501	E6
Q502	D6
Q503	E7
Q504	D7
Q505	E7
D1	A2
D2	D10
D3	A3
D4	C10
D5	C10
D6	B10
D7	B10
D10	A10
D11	A5
D12	B3
D201	E9
D202	D12
D203	D10
D204	D10
D205	C10
D206	D9
D207	D9
D208	D9
D209	B2
D210	B3
D212	C6
D213	C6
D214	C5
D215	C5
D216	E8
D217	E8
D218	D8
D219	C10
D220	C11
D221	C11
D222	C7
D223	D11
D224	C11
D225	E9
D401	D5
D501	D6

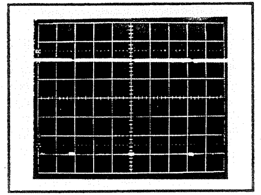
1. 20μs/DIV 0.5V/DIV



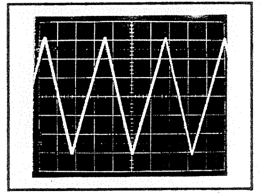
2. 10μs/DIV 0.2V/DIV



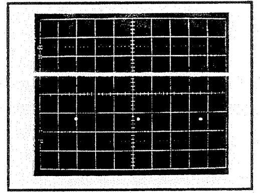
3. 20μs/DIV 1V/DIV



4. 5μs/DIV 0.1V/DIV



5. 5ms/DIV 1V/DIV



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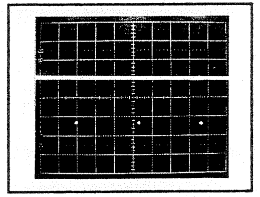


(Voltages)

	B	C	E
Q1	0.7	0	0
2	0	14.9	0.1
3	0	14.9	0.1
4	0.6	0	0
5	0	14.9	0.1
6	0.6	0	0
7	0	0	0
9	0	0.2	0
10	0	0	5.9
11	-4.8	-4.7	0.2
12	6.0	14.9	5.9
13	5.9	12.4	14.9
14	5.9	12.4	14.9
15	8.4	14.9	7.9
16	8.4	0	7.9
17	7.9	9.2	14.9
18	7.9	9.2	14.9
19	2.5	1.8	2.5
20	0	1.0	2.5
21	11.5	11.6	12.3
22	2.4	11.5	1.8
23	5.9	9.0	5.4
24	5.9	0	5.4
26	5.4	0.1	9.0
27	8.9	8.2	8.2
28	8.2	0	9.0
29	0.7	0	0
30	14.2	14.9	14.9
31	-4.5	-4.8	-5.2
32	-0.7	-4.5	-0.1-

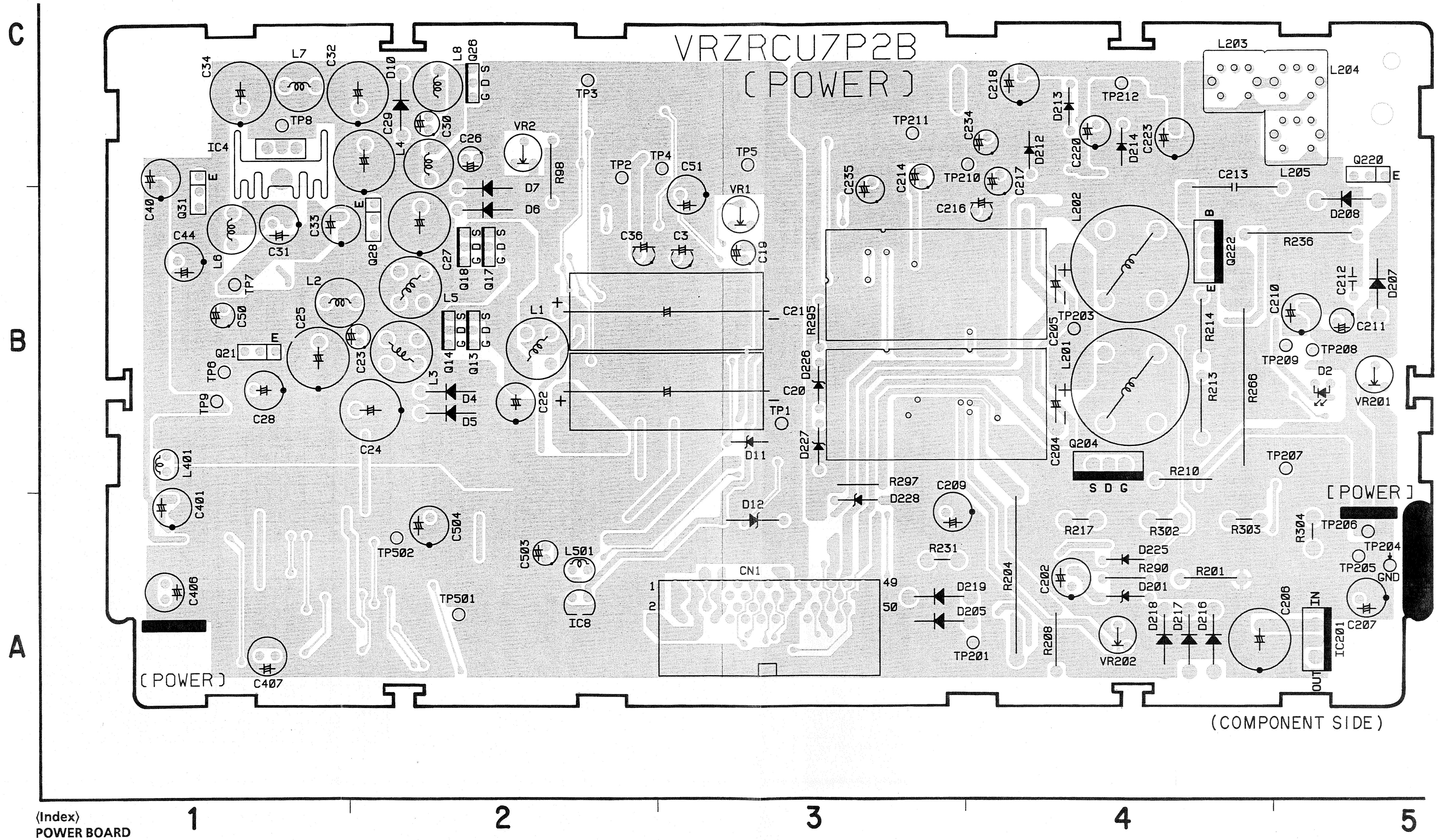
	B	C	E
Q205	-0.1	0.8	0.2
202	-0.1	-0.1	0
204	0	0	0
205	0	0	-0.1
206	0	-0.1	-0.1
207	-0.1	-0.1	-0.1
208	-0.1	-0.1	-0.1
209	-0.1	-0.1	-0.1
210	-0.1	-0.1	-0.1
211	-0.1	-0.1	-0.1
212	0	-0.1	-0.1
213	0	0.3	5.0
214	1.0	0.3	0.3
215	-0.1	5.0	0
216	0	-0.1	-0.1
217	0.3	0	0
218	-0.1	0.3	-0.1
220	0	0.3	0
221	-0.1	-0.1	0
222	-0.1	-0.1	-0.1
223	3.7	3.1	3.1
224	-0.1	-0.1	-0.1
401	2.9	5.0	2.3
402	2.9	-4.8	2.3
501	0	4.9	0
502	0	4.9	0
503	0	1.5	0
505	0	9.1	0

	IC1	IC2	IC4	IC5	IC6	IC7	IC8	IC201	IC202	IC203	IC204	IC205
Pin 1	1.7	1.7	9.0	-0.1	7.8	4.3	5.0	0.2	-0.1	0	0	5.0
2	1.0	2.5	0	0	12.9	5.0	0	0	0	5.0	0	5.0
3	1.4	1.4	5.0	-0.1	13.6	5.0	8.9	0	-0.1	0	0	0
4	1.4	1.4		0	0	3.3			-0.1	5.0	4.9	5.0
5	1.7	1.8		-0.1	0	0.4			-0.1	3.3	5.0	0
6	1.1	1.6		-0.1	14.9	0			-0.1	0		5.0
7	6.7	5.9		-0.1	0	4.4			0	0		5.0
8	0	0		-0.1	14.9	0			-0.1	5.0		0
9	14.9	14.9		-0.1		3.3						0
10	3.7	0		-0.1		5.0						5.0
11	1.1	0		-0.1		5.0						5.0
12	1.6	1.7		-0.1		4.6						0
13	1.4	1.7		-0.1		1.7						5.0
14	1.4	0		0		0						5.0
15	0.1	0.2				3.1						0
16	2.5	2.5				5.0						5.0

	IC206	IC208	IC209	IC210	IC211	IC212	IC213	IC401	IC402	IC401	IC402
Pin 1	-0.1	0	0	5.0	0	0	2.8	5.0	5.0	5.0	5.0
2	-0.1	0	5.0	0.3	0	0	2.3	0	5.0	1.8	0
3	0	0	5.0	3.2	0	0	2.3	0	0.3	2.3	5.0
4	3.5	5.0	0	0	0	0	-4.8	5.0	0.3	0	5.0
5	3.5	5.0	0.5	0	0	5.0	2.7	5.0	0.3	0	0
6	5.0		0	5.0			2.7	4.6	0	5.0	5.0
7	2.4		5.0	0			2.7	5.0	0	0	0
8	3.1		0	0			5.0	0	0	5.0	4.9
9			5.0					0	5.0		0
10			0					0.1	0.1		5.0
11			0.1					5.0	5.0		4.9
12			0.1					5.0	0.3		0
13			0					0	0.3		4.9
14			5.0					5.0	0.3		5.0
15			0					5.0	5.0		
16			5.0					0	5.0		

CONDUCTOR VIEW OF POWER BOARD (COMPONENT SIDE)

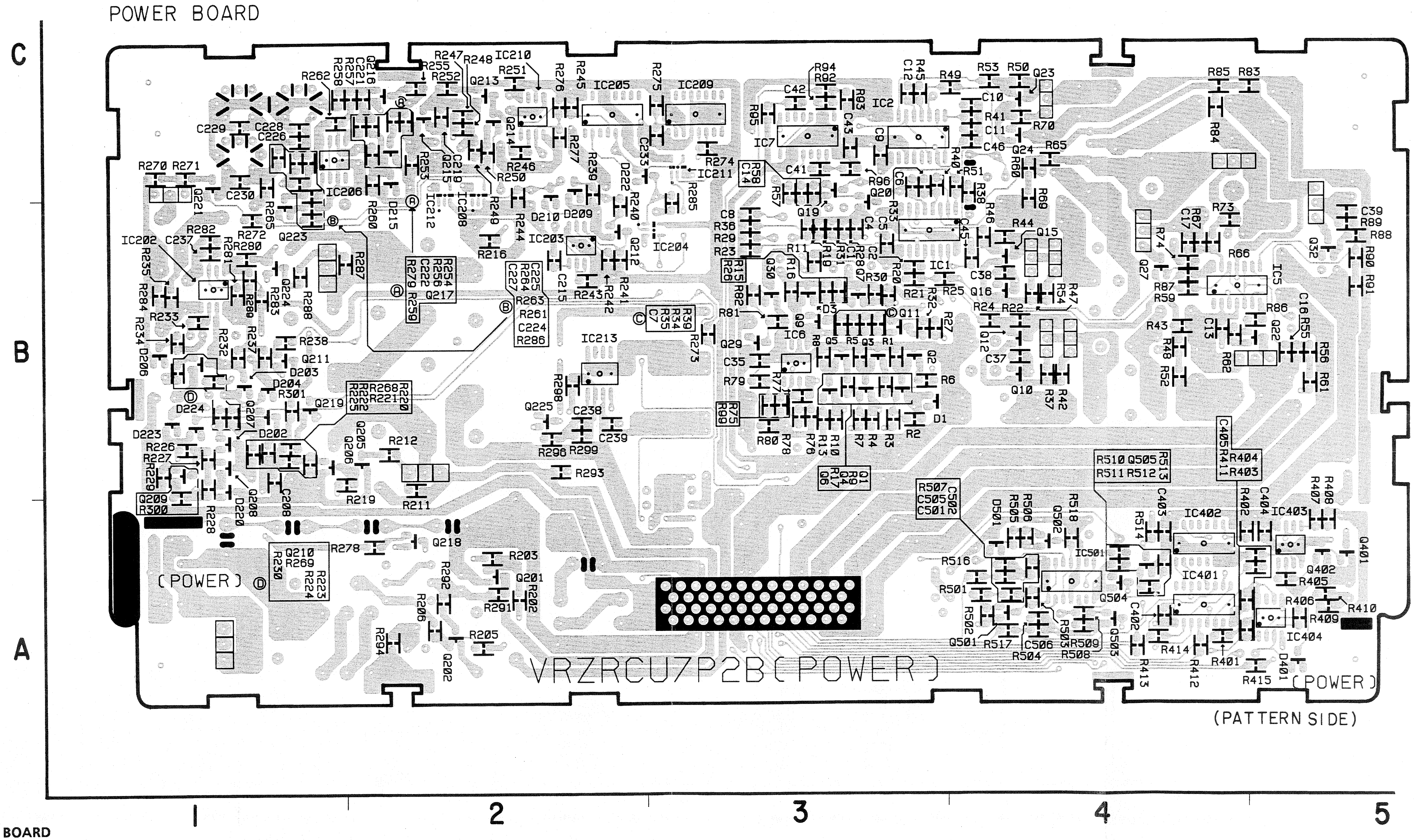
POWER BOARD


C
B
A
1
2
3
4
5
VRZRCU7P2B
(POWER)
C34
L7
C32
D10
L8
Q26
G D S
TP3
TP8
IC4
C29
L4
C30
C26
VR2
R98
TP2
TP4
C51
TP5
VR1
C19
C40
Q31
E
C44
C31
C33
Q28
D7
D6
L6
TP7
C27
Q18
Q17
C36
C3
L2
L5
C50
C25
E
Q21
C23
Q14
Q13
L1
C215
C20
TP6
TP9
C28
L3
D4
D5
C24
C22
TP1
D11
L401
C401
C504
TP502
C503
L501
D12
C406
TP501
IC8
CN1
1
2
49
50
C407
(POWER)
C218
D213
TP212
C220
D214
C223
TP211
C234
D212
TP210
C217
C235
C214
C216
L202
L203
L204
Q220
E
C213
L205
D208
R236
Q222
B
E
C212
D207
C210
C211
R295
C205
TP203
L201
R214
TP208
TP209
D2
VR201
R213
R266
D226
D227
C204
Q204
S D G
R210
TP207
R297
D228
C209
[POWER]
R217
R302
R303
R304
TP206
TP204
R231
D225
R290
TP205
GND
R201
D201
C202
R204
D219
D205
C206
IN
IC201
C207
OUT
R208
TP201
VR202
D218
D217
D216
(COMPONENT SIDE)

(Index)
POWER BOARD
(COMPONENT SIDE)

IC4	C1	Q17	B2	Q31	B1	D4	B2	D11	B3	D208	B5	D217	A4
IC8	A2	Q18	B2	Q204	B4	D5	B2	D12	A3	D212	C4	D218	A4
IC201	A5	Q21	B1	Q220	C5	D6	B2	D201	A4	D213	C4	D219	A3
Q13	B2	Q26	C2	Q222	B4	D7	B2	D205	A3	D214	C4	D225	A4
Q14	B2	Q28	B2	D2	B5	D10	C2	D207	B5	D216	A4		

CONDUCTOR VIEW OF POWER BOARD (PATTERN SIDE)



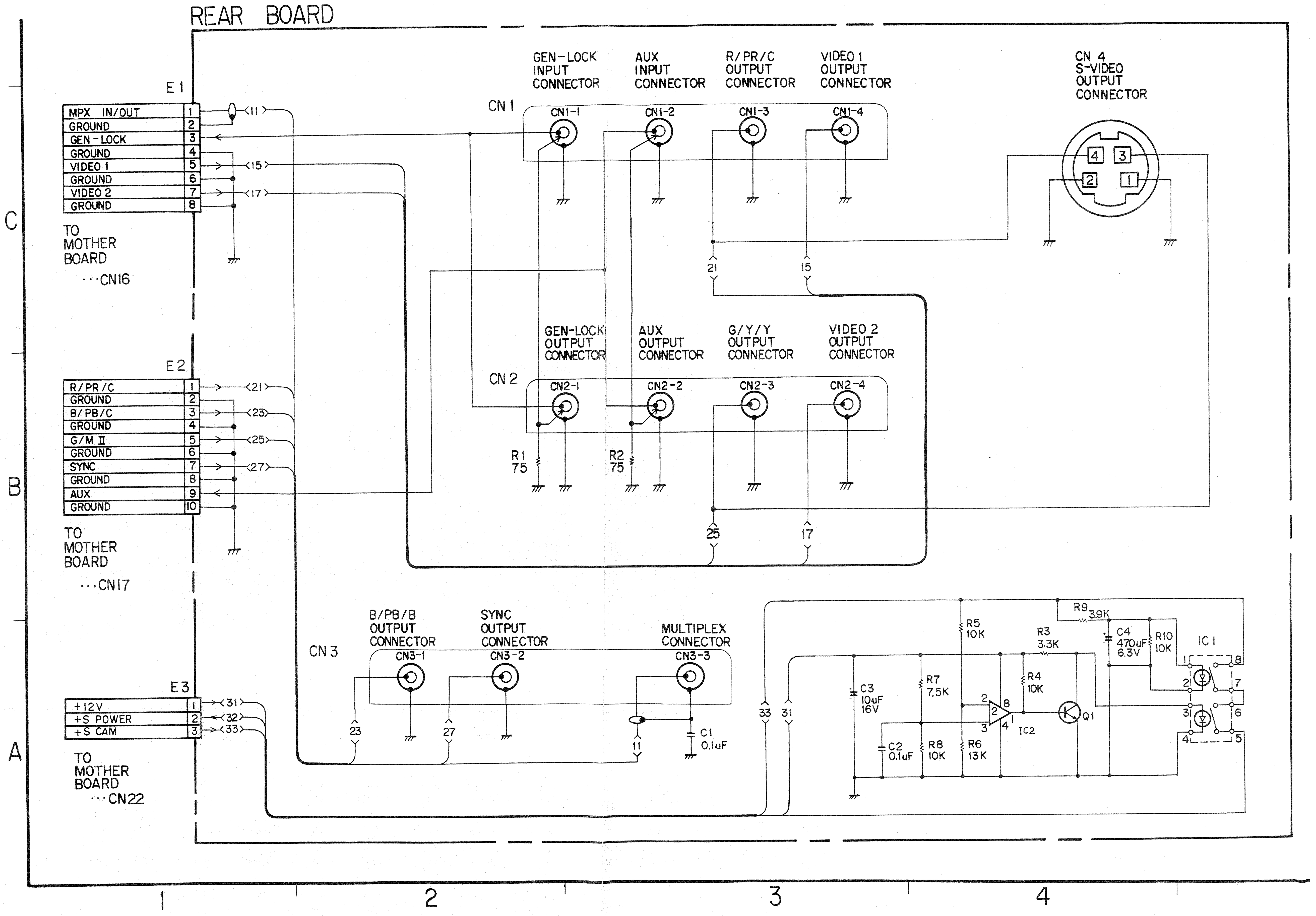
⟨Index⟩
POWER BOARD
(PATTERN SIDE)

IC1	B3
IC2	C3
IC5	B4
IC6	B3
IC7	C3
IC202	B1
IC203	B2
IC204	B3
IC205	C2
IC206	C1
IC208	B2
IC209	C3
IC210	C2
IC211	C3
IC212	B2
IC401	A4
IC402	A4
IC403	A5
IC404	A5
IC501	A4
Q1	B3
Q2	B3
Q3	B3
Q4	B3
Q5	B3
Q6	B3
Q7	B3
Q9	B3
Q10	B4
Q11	B3
Q12	B4
Q15	B4
Q16	B4
Q19	C3
Q20	B3
Q22	B5
Q23	C4
Q24	C4
Q27	B4
Q29	B3
Q30	B3
Q32	B5
Q201	A2
Q202	A2
Q205	B2
Q206	B1
Q207	B1
Q208	B1
Q209	B1
Q210	A1
Q211	B1
Q212	B2
Q213	C2
Q214	C2
Q215	C2
Q216	C2
Q217	B2
Q218	A2
Q219	B1
Q221	C1
Q223	B1
Q224	B1
Q401	A5
Q402	A5
Q501	A4
Q502	A4
Q503	A4
Q504	A4
Q505	B4
D1	B3
D3	B3
D202	B1
D203	B1
D204	B1
D206	B1
D209	C2
D210	B2
D215	C2
D220	B1
D222	C2
D223	B1
D224	B1
D401	A5
D501	A4

SCHEMATIC DIAGRAM OF REAR BOARD

⟨Index⟩
REAR BOARD

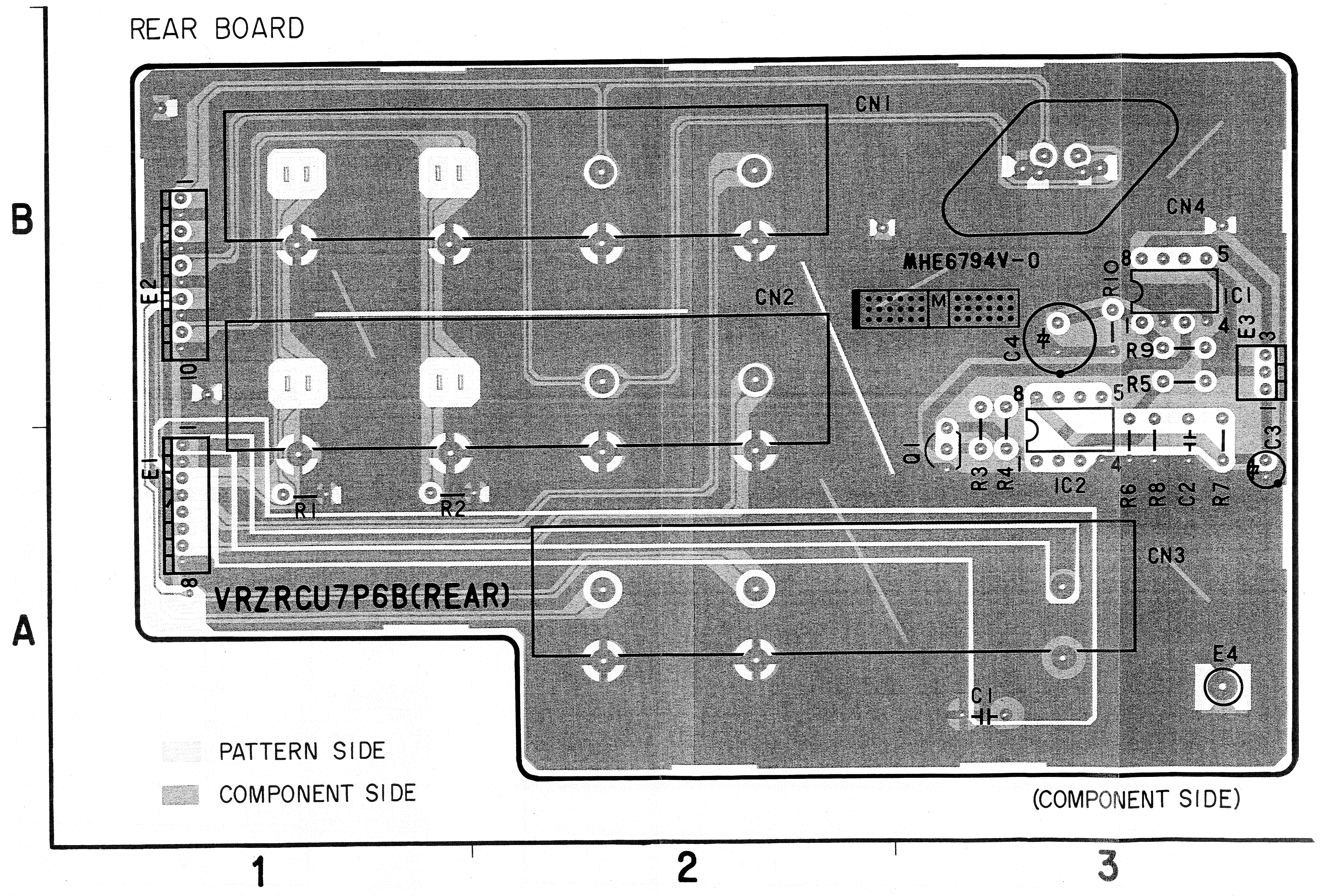
IC1	A5
IC2	A4
Q1	A4


REAR BOARD
E 1
MPX IN/OUT
GROUND
GEN-LOCK
GROUND
VIDEO 1
GROUND
VIDEO 2
GROUND
TO MOTHER BOARD ···CN16
E 2
R/PR/C
GROUND
B/PB/C
GROUND
G/M II
GROUND
SYNC
GROUND
AUX
GROUND
TO MOTHER BOARD ···CN17
E 3
+12V
+S POWER
+S CAM
TO MOTHER BOARD ···CN22
CN 1
GEN-LOCK INPUT CONNECTOR
AUX INPUT CONNECTOR
R/PR/C OUTPUT CONNECTOR
VIDEO 1 OUTPUT CONNECTOR
CN1-1
CN1-2
CN1-3
CN1-4
CN 4 S-VIDEO OUTPUT CONNECTOR
CN 2
GEN-LOCK OUTPUT CONNECTOR
AUX OUTPUT CONNECTOR
G/Y/Y OUTPUT CONNECTOR
VIDEO 2 OUTPUT CONNECTOR
CN2-1
CN2-2
CN2-3
CN2-4
R1 75
R2 75
CN 3
B/PB/B OUTPUT CONNECTOR
SYNC OUTPUT CONNECTOR
MULTIPLEX CONNECTOR
CN3-1
CN3-2
CN3-3
C1 0.1uF
R9 3.9K
R5 10K
R3 3.3K
C4 470uF 6.3V
R10 10K
IC1
R7 7.5K
R4 10K
C3 10uF 16V
IC2
Q1
C2 0.1uF
R8 10K
R6 13K
11
15
17
21
23
25
27
31
32
33
A
B
C
1
2
3
4

CONDUCTOR VIEW OF REAR BOARD

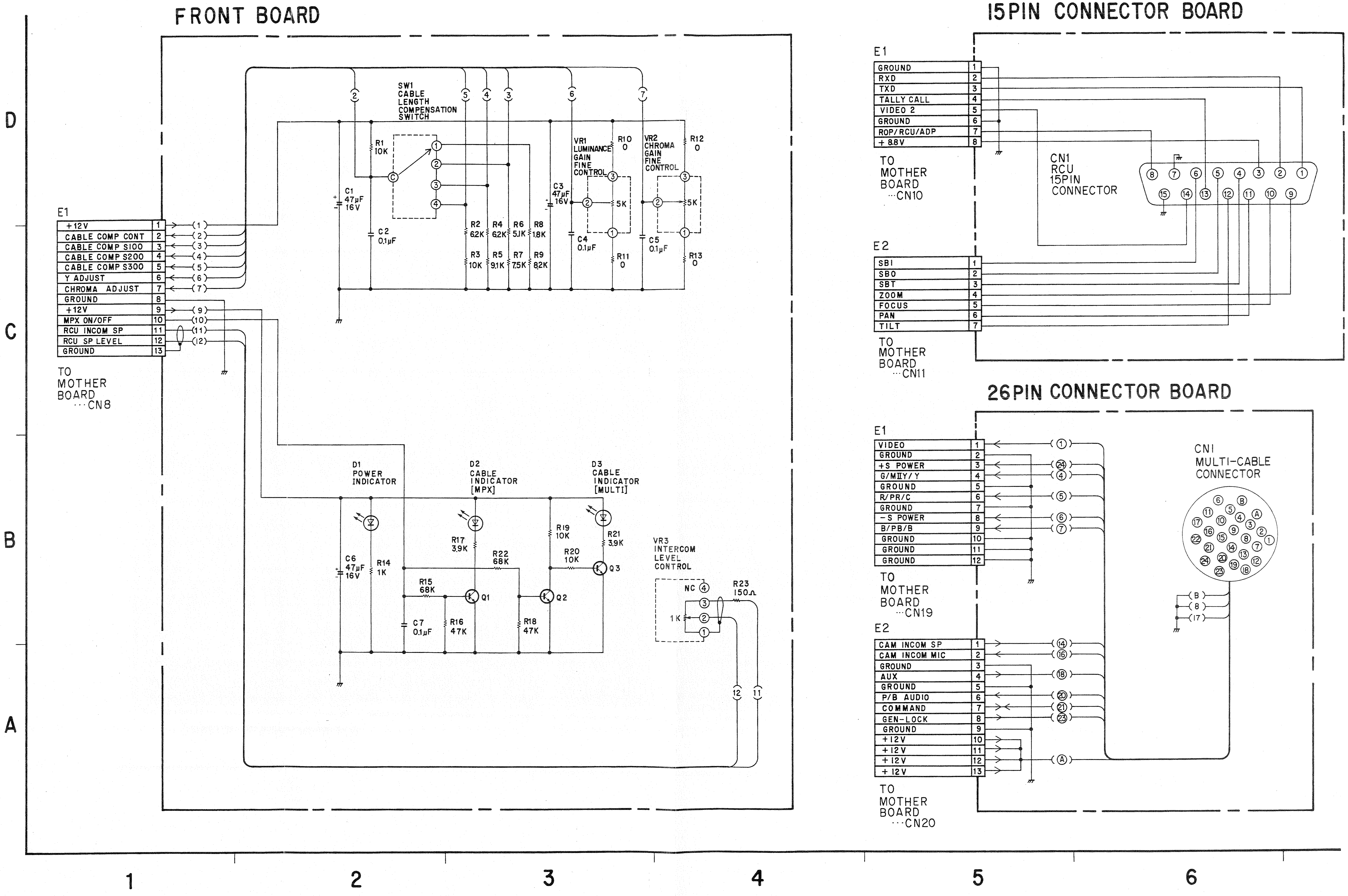
⟨Index⟩
REAR BOARD

IC1	B3
IC2	A3
Q1	A3

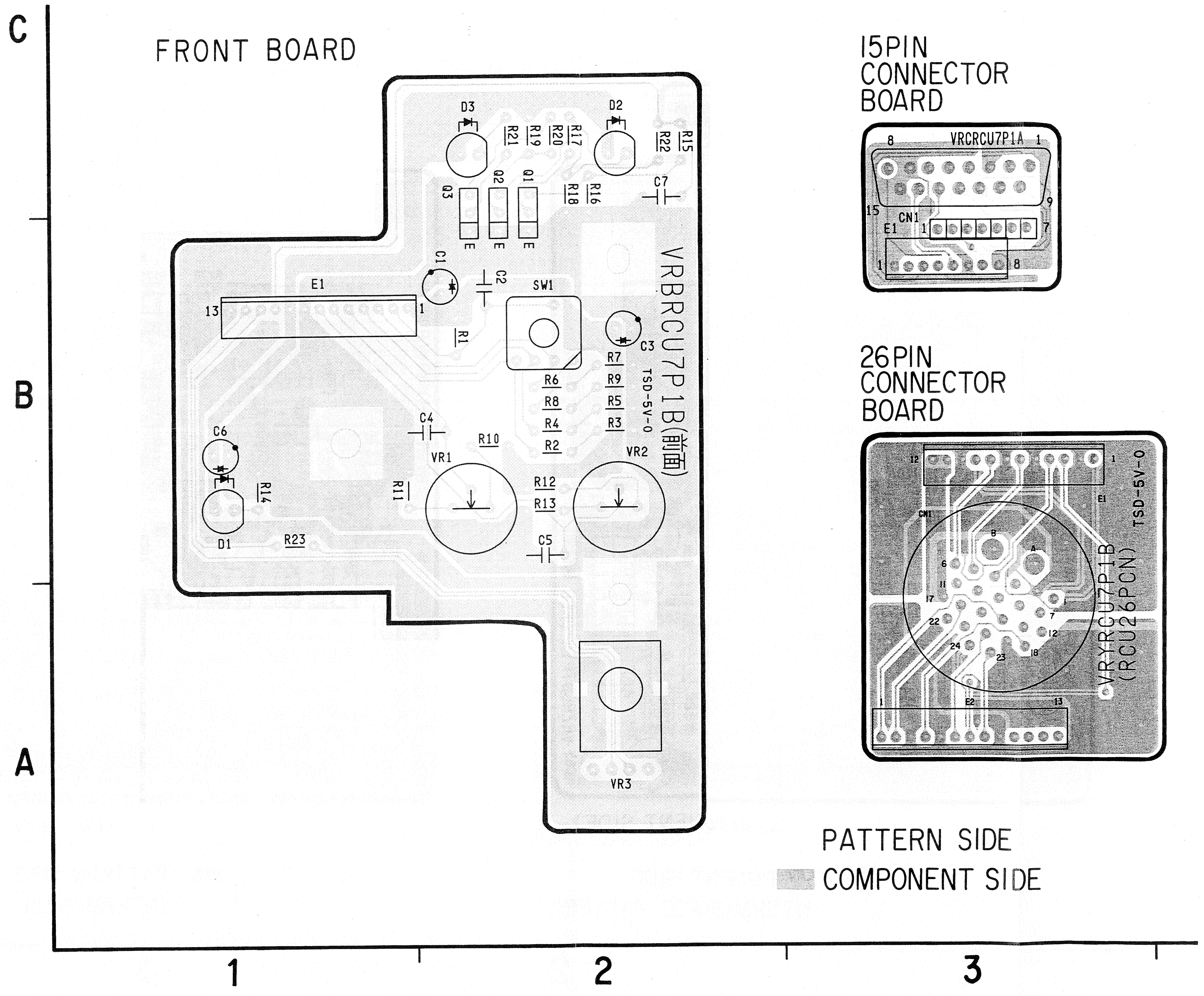


REAR BOARD
B
A
1
2
3
CN1
CN2
CN3
CN4
E1
E2
E3
E4
MHE6794V-0
IC1
IC2
Q1
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
C1
C2
C3
C4
VRZRCU7P6B(REAR)
PATTERN SIDE
COMPONENT SIDE
(COMPONENT SIDE)

SCHEMATIC DIAGRAM OF FRONT BOARD


FRONT BOARD
15PIN CONNECTOR BOARD
26PIN CONNECTOR BOARD
D
C
B
A
1
2
3
4
5
6
E1
+12V 1
CABLE COMP CONT 2
CABLE COMP S100 3
CABLE COMP S200 4
CABLE COMP S300 5
Y ADJUST 6
CHROMA ADJUST 7
GROUND 8
+12V 9
MPX ON/OFF 10
RCU INCOM SP 11
RCU SP LEVEL 12
GROUND 13
TO MOTHER BOARD ···CN8
SW1 CABLE LENGTH COMPENSATION SWITCH
R1 10K
C1 47μF 16V
C2 0,1μF
R2 62K
R4 62K
R6 5,1K
R8 1,8K
R3 10K
R5 9,1K
R7 7,5K
R9 82K
VR1 LUMINANCE GAIN FINE CONTROL
R10 0
VR2 CHROMA GAIN FINE CONTROL
R12 0
C3 47μF 16V
5K
C4 0,1μF
R11 0
C5 0,1μF
R13 0
D1 POWER INDICATOR
D2 CABLE INDICATOR [MPX]
D3 CABLE INDICATOR [MULTI]
C6 47μF 16V
R14 1K
R17 3,9K
R22 68K
R19 10K
R21 3,9K
R20 10K
Q3
R15 68K
Q1
Q2
C7 0,1μF
R16 47K
R18 47K
VR3 INTERCOM LEVEL CONTROL
NC
1K
R23 150Ω
E1
GROUND 1
RXD 2
TXD 3
TALLY CALL 4
VIDEO 2 5
GROUND 6
ROP/RCU/ADP 7
+8.8V 8
TO MOTHER BOARD ···CN10
CN1 RCU 15PIN CONNECTOR
E2
SBI 1
SBO 2
SBT 3
ZOOM 4
FOCUS 5
PAN 6
TILT 7
TO MOTHER BOARD ···CN11
E1
VIDEO 1
GROUND 2
+S POWER 3
G/MIIY/Y 4
GROUND 5
R/PR/C 6
GROUND 7
-S POWER 8
B/PB/B 9
GROUND 10
GROUND 11
GROUND 12
TO MOTHER BOARD ···CN19
CN1 MULTI-CABLE CONNECTOR
E2
CAM INCOM SP 1
CAM INCOM MIC 2
GROUND 3
AUX 4
GROUND 5
P/B AUDIO 6
COMMAND 7
GEN-LOCK 8
GROUND 9
+12V 10
+12V 11
+12V 12
+12V 13
TO MOTHER BOARD ···CN20

CONDUCTOR VIEW OF FRONT BOARD


C
B
A
1
2
3
FRONT BOARD
D3
D2
R21
R19
R20
R17
R22
R15
Q3
Q2
Q1
R18
R16
C7
E
E
E
C1
C2
SW1
E1
13
1
R1
C3
R7
R9
R5
R3
R6
R8
R4
R2
VRBRCU7P1B(前面)
TSD-5V-0
C4
C6
R10
VR1
VR2
R14
R11
R12
R13
D1
R23
C5
VR3
15PIN CONNECTOR BOARD
VRCRCU7P1A
8
1
15
9
CN1
E1
1
7
1
8
26PIN CONNECTOR BOARD
12
1
E1
CN1
TSD-5V-0
VRYRCU7P1B
(RCU26PCN)
E2
1
13
PATTERN SIDE
COMPONENT SIDE

⟨Index⟩
FRONT BOARD

Q1	C2
Q2	C2
Q3	C2
D1	B1
D2	C2
D3	C2

CONDUCTOR VIEW OF MAIN BOARD FOR REMOTE CONTROL BOX WV-CB700

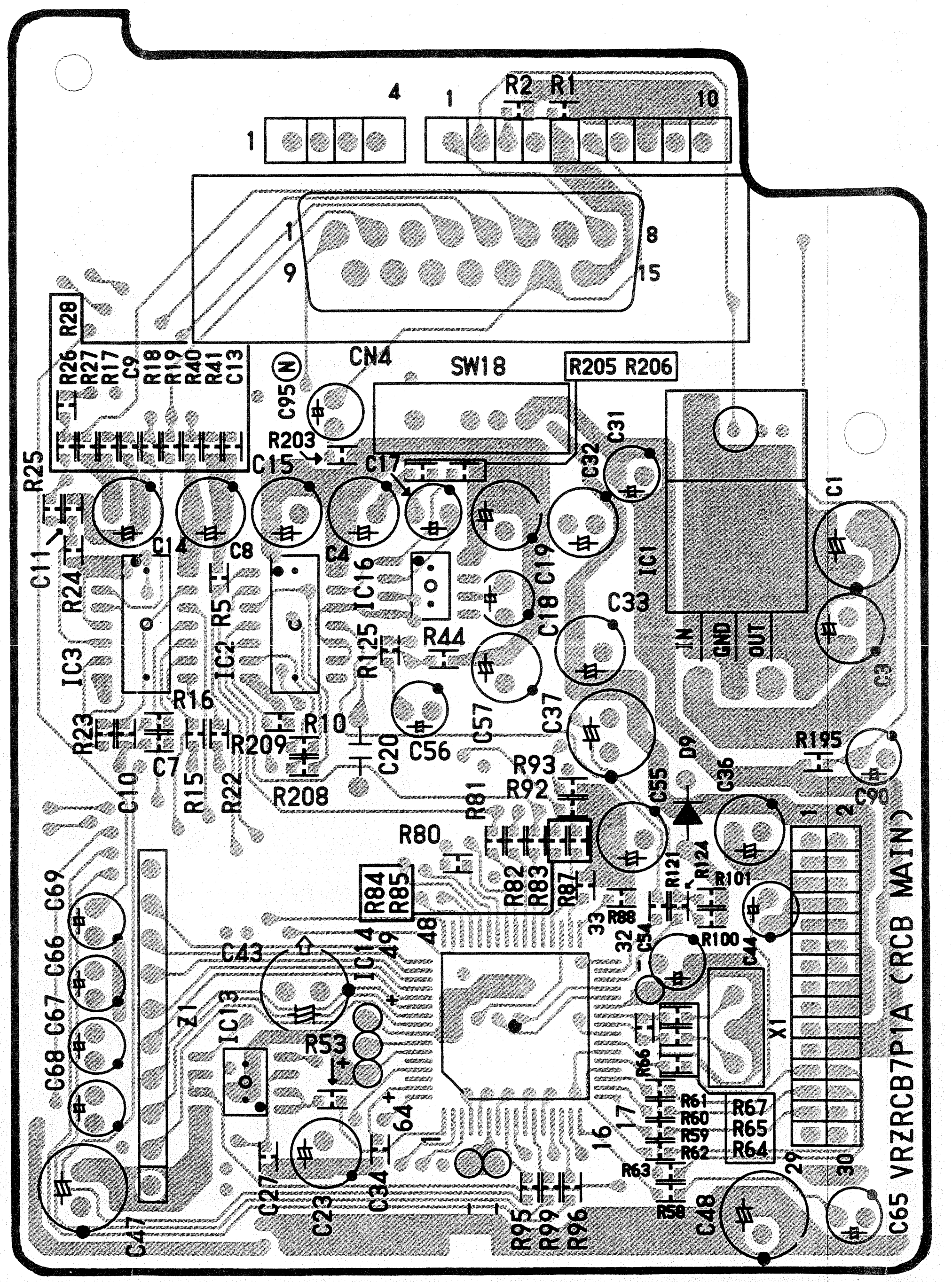
〈Index〉
MAIN BOARD

IC1	B2
IC2	B1
IC3	B1
IC4	B3
IC8	A3
IC10	B3
IC12	A3
IC13	A1
IC14	A1
IC15	A3
Q1	A3
Q2	B3
Q3	B3
D1	B3
D3	B3
D6	A3
D7	A3
D8	A3
D9	B2

B

A

MAIN BOARD

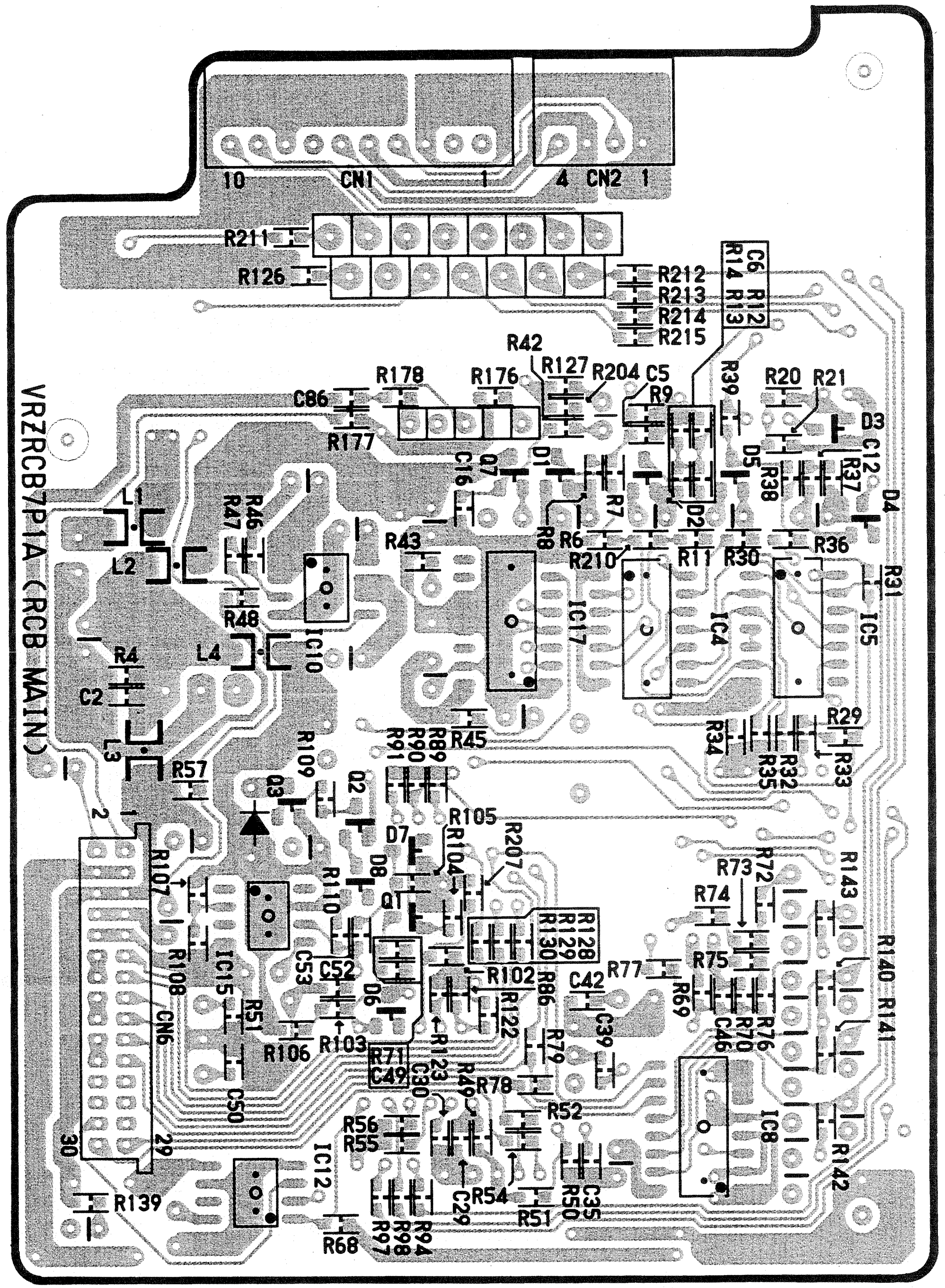


CN4
SW18
R205 R206
IC1
IC2
IC3
IC13
IC14
X1
Z1
IN GND OUT
VRZRCB7P1A (RCB MAIN)

(COMPONENT SIDE)

▨ COMPONENT SIDE
INTERMIDIATE PATTERN

MAIN BOARD



CN1
CN2
CN6
IC4
IC5
IC8
IC10
IC12
IC15
IC17
VRZRCB7P1A (RCB MAIN)

(PATTERN SIDE)

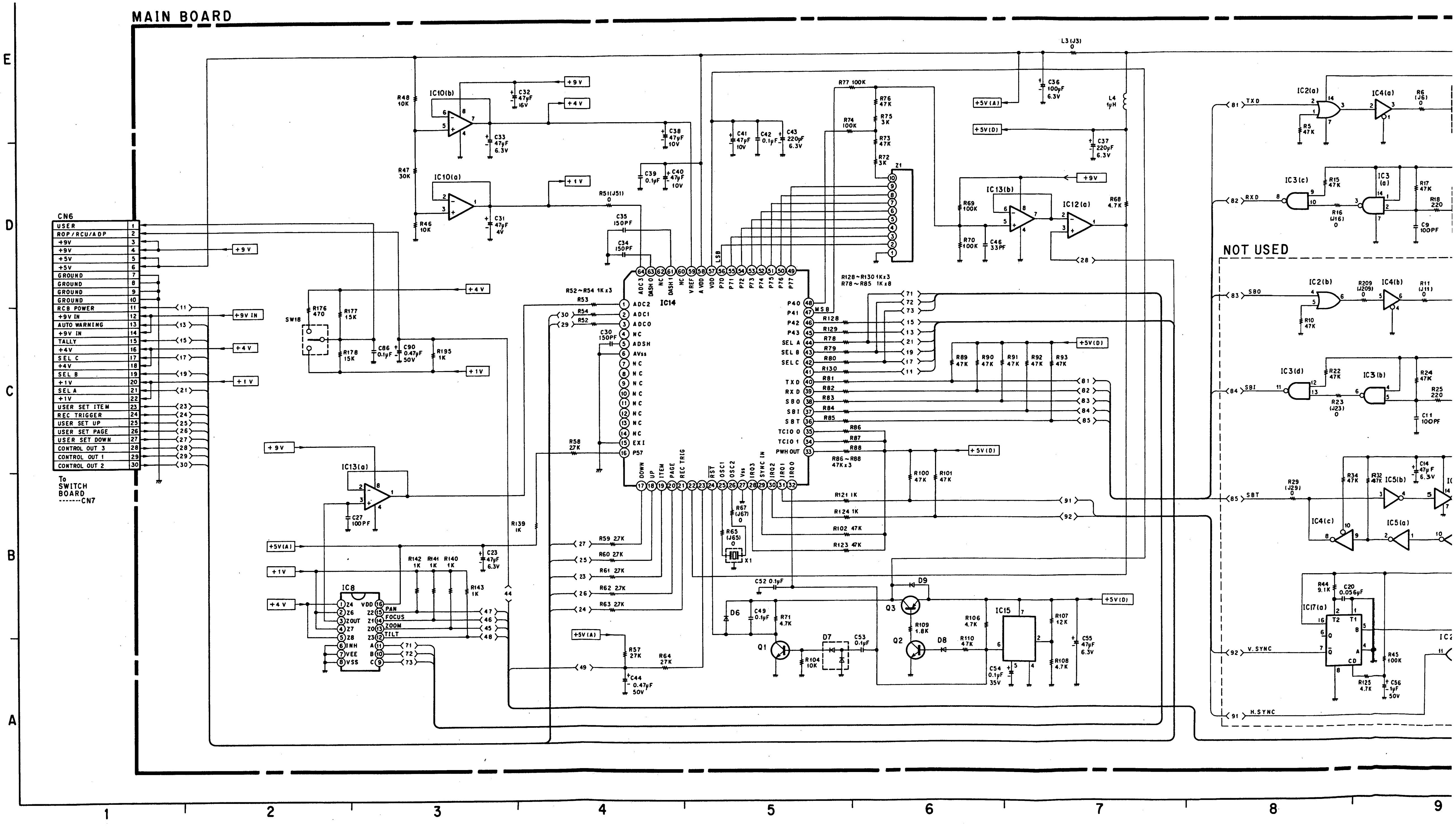
▨ PATTERN SIDE
INTERMIDIATE PATTERN

1 2 3

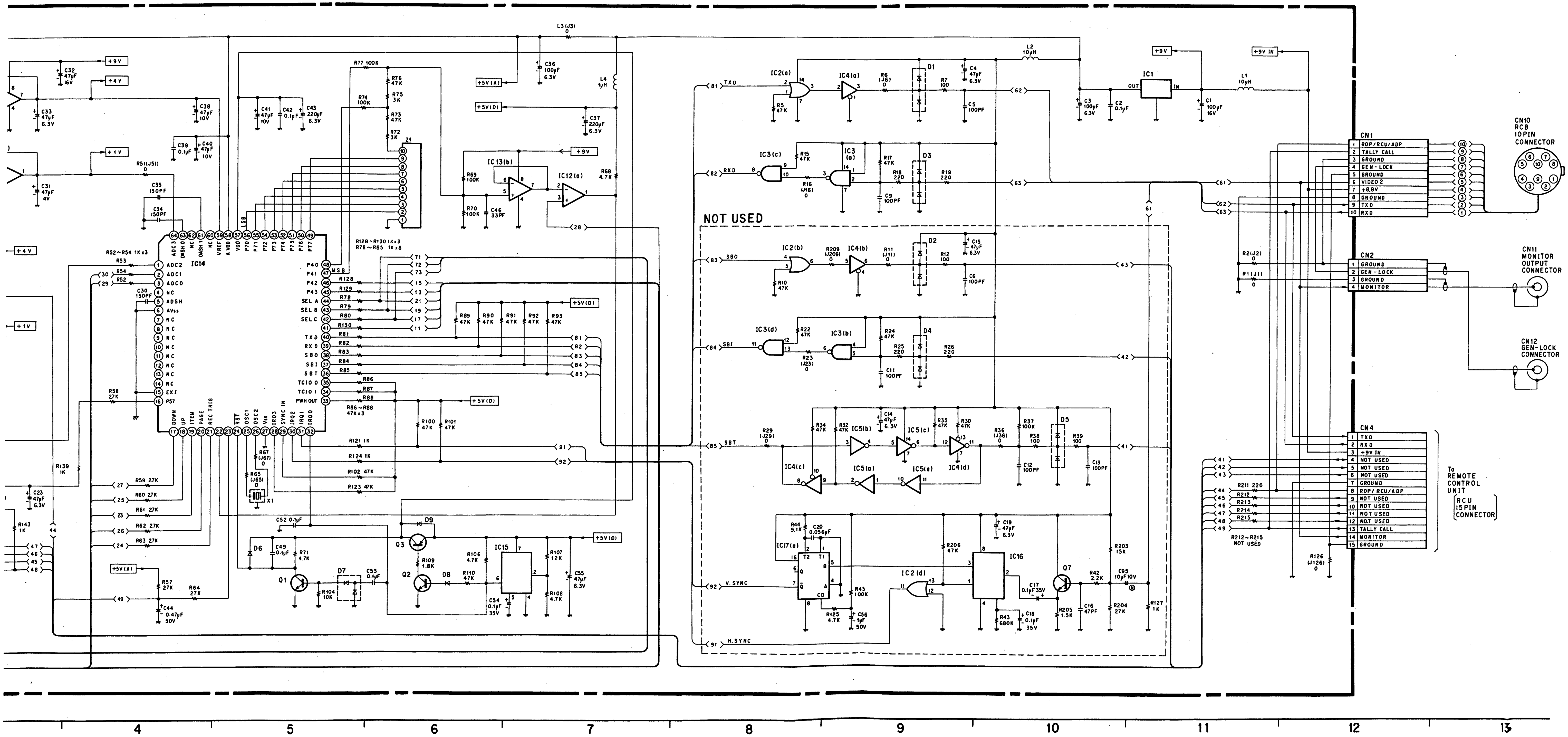
SCHEMATIC DIAGRAM OF MAIN BOARD FOR REMOTE CONTROL BOX WV-CB7

⟨Index⟩
MAIN BOARD

IC1	E11
IC2	D8, E8
IC3	C8, C9, D8, D9
IC4	D9, E9
IC8	B3
IC10	E3, D3
IC12	D7
IC13	B3, D7
IC14	C4
IC15	A7
Q1	A5
Q2	A6
Q3	B6
D1	E9
D3	D9
D6	B5
D7	A5
D8	A6
D9	B6


MAIN BOARD
NOT USED
CN6
USER
ROP/RCU/ADP
+9V
+9V
+5V
+5V
GROUND
GROUND
GROUND
GROUND
RCB POWER
+9V IN
AUTO WARNING
+9V IN
TALLY
+4V
SEL C
+4V
SEL B
+1V
SEL A
+1V
USER SET ITEM
REC TRIGGER
USER SET UP
USER SET PAGE
USER SET DOWN
CONTROL OUT 3
CONTROL OUT 1
CONTROL OUT 2
To SWITCH BOARD CN7
IC10(b)
IC10(a)
IC13(a)
IC13(b)
IC12(a)
IC8
IC14
IC15
IC2(a)
IC4(a)
IC3(c)
IC3(a)
IC2(b)
IC4(b)
IC3(d)
IC3(b)
IC5(b)
IC4(c)
IC5(a)
IC17(a)
SW18
Q1
Q2
Q3
D6
D7
D8
D9
X1
L3(J3)
L4 1μH
+9V
+4V
+1V
+9V IN
+5V(A)
+5V(D)
TXD
RXD
SB0
SBI
SBT
V.SYNC
H.SYNC
A
B
C
D
E
1
2
3
4
5
6
7
8
9

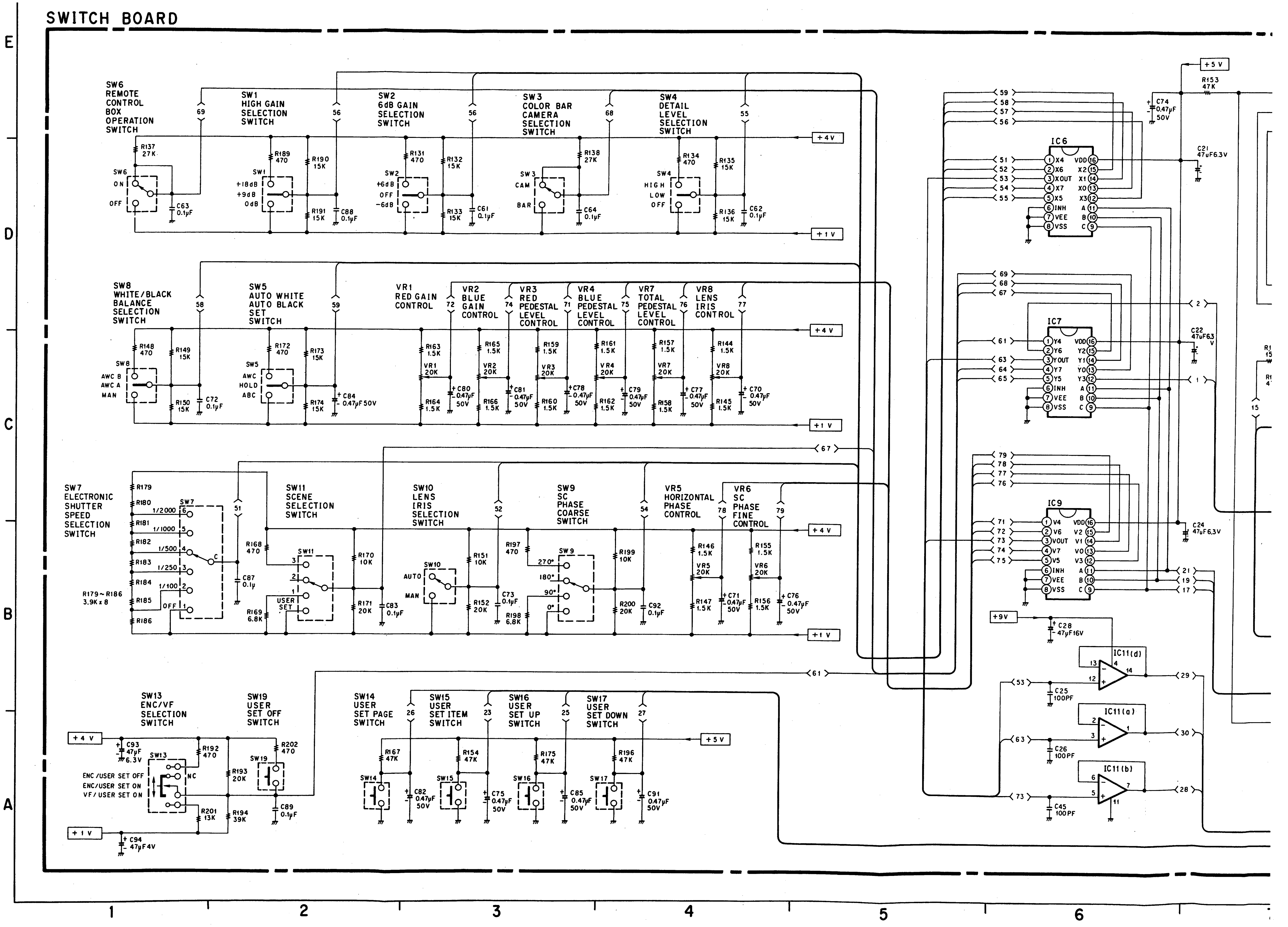
SCHEMATIC DIAGRAM OF MAIN BOARD FOR REMOTE CONTROL BOX WV-CB700


IC14
IC13(b)
IC12(a)
IC2(a)
IC4(a)
IC3(c)
IC3(a)
IC2(b)
IC4(b)
IC3(d)
IC3(b)
IC4(c)
IC5(a)
IC5(b)
IC5(c)
IC5(e)
IC4(d)
IC17(a)
IC16
IC2(d)
IC15
IC1
Q1
Q2
Q3
Q7
D1
D2
D3
D4
D5
D6
D7
D8
D9
X1
L1 10µH
L2 10µH
L3(J3) 0
L4 1µH
+9V
+4V
+1V
+5V(A)
+5V(D)
+9V IN
NOT USED
TXD
RXD
SBO
SBI
SBT
V.SYNC
H.SYNC
ADC2
ADC1
ADC0
AVss
EXI
P57
DOWN
UP
ITEM
PAGE
REC TRIG
RST
OSC1
OSC2
Vss
SYNC IN
IRQ3
IRQ2
IRQ1
IRQ0
PWM OUT
TCIO 0
TCIO 1
SEL A
SEL B
SEL C
P40
P41
P42
P43
MSB
LSB
CN1
1 ROP/RCU/ADP
2 TALLY CALL
3 GROUND
4 GEN-LOCK
5 GROUND
6 VIDEO 2
7 +8.8V
8 GROUND
9 TXD
10 RXD
CN10 RCB 10PIN CONNECTOR
CN2
1 GROUND
2 GEN-LOCK
3 GROUND
4 MONITOR
CN11 MONITOR OUTPUT CONNECTOR
CN12 GEN-LOCK CONNECTOR
CN4
1 TXD
2 RXD
3 +9V IN
4 NOT USED
5 NOT USED
6 NOT USED
7 GROUND
8 ROP/RCU/ADP
9 NOT USED
10 NOT USED
11 NOT USED
12 NOT USED
13 TALLY CALL
14 MONITOR
15 GROUND
To REMOTE CONTROL UNIT
RCU 15PIN CONNECTOR
R212~R215 NOT USED
R52~R54 1K×3
R128~R130 1K×3
R78~R85 1K×8
R86~R88 47K×3
4
5
6
7
8
9
10
11
12
13

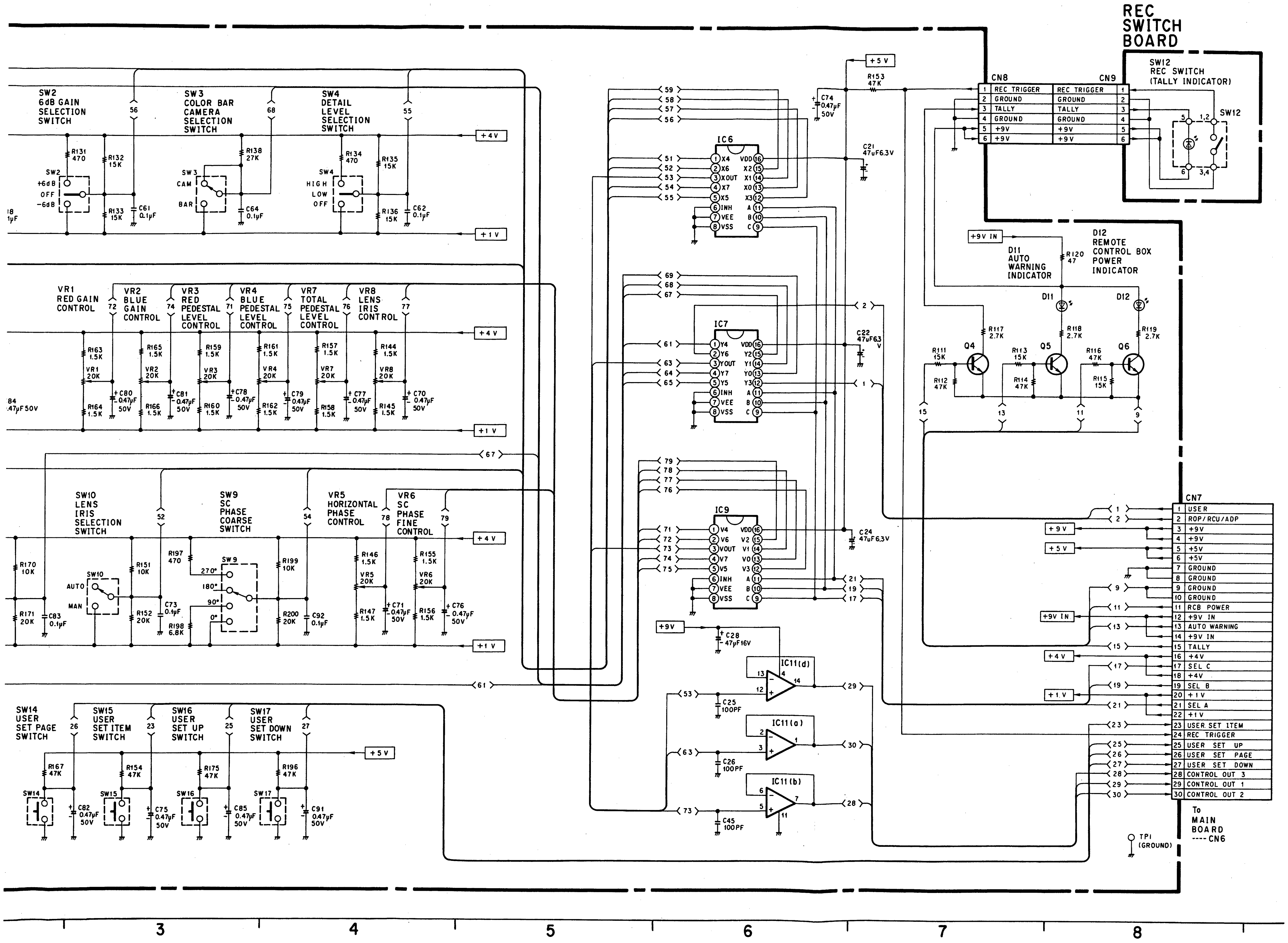
SCHEMATIC DIAGRAM OF SWITCH BOARD FOR REMOTE CONTROL BOX WV-CB700

⟨Index⟩
SWITCH BOARD

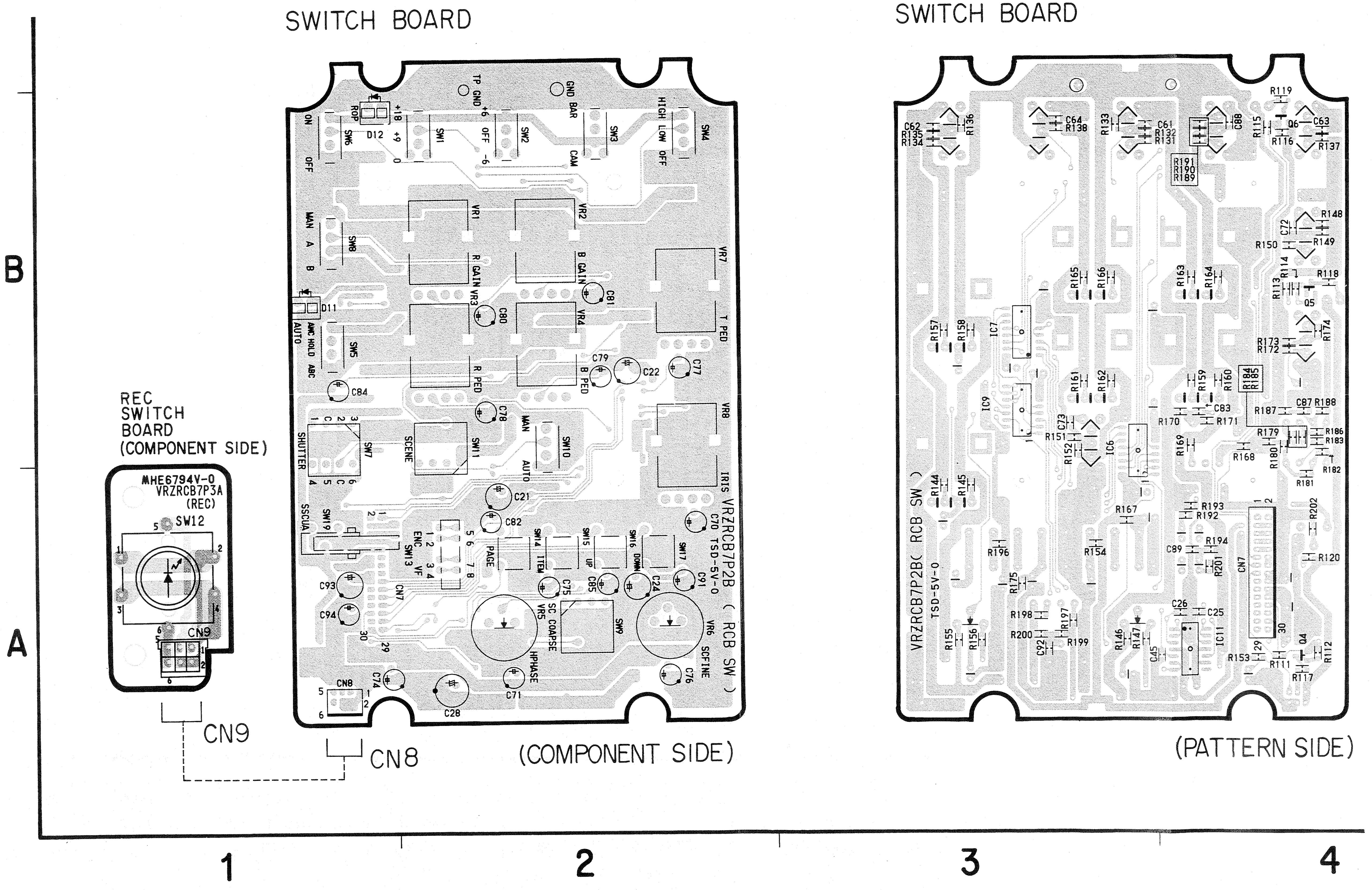
IC6	D6
IC7	C6
IC9	B6
IC11	A6,B6
Q4	C7
Q5	C8
Q6	C8
D11	D8
D12	D8


SWITCH BOARD
E
D
C
B
A
1
2
3
4
5
6
SW6 REMOTE CONTROL BOX OPERATION SWITCH
SW1 HIGH GAIN SELECTION SWITCH
SW2 6dB GAIN SELECTION SWITCH
SW3 COLOR BAR CAMERA SELECTION SWITCH
SW4 DETAIL LEVEL SELECTION SWITCH
ON
OFF
+18dB
+9dB
0dB
+6dB
OFF
–6dB
CAM
BAR
HIGH
LOW
OFF
R137 27K
R189 470
R190 15K
R191 15K
R131 470
R132 15K
R133 15K
R138 27K
R134 470
R135 15K
R136 15K
C63 0.1μF
C88 0.1μF
C61 0.1μF
C64 0.1μF
C62 0.1μF
+4 V
+1 V
+5 V
SW8 WHITE/BLACK BALANCE SELECTION SWITCH
SW5 AUTO WHITE AUTO BLACK SET SWITCH
AWC B
AWC A
MAN
AWC
HOLD
ABC
R148 470
R149 15K
R150 15K
C72 0.1μF
R172 470
R173 15K
R174 15K
C84 0.47μF 50V
VR1 RED GAIN CONTROL
VR2 BLUE GAIN CONTROL
VR3 RED PEDESTAL LEVEL CONTROL
VR4 BLUE PEDESTAL LEVEL CONTROL
VR7 TOTAL PEDESTAL LEVEL CONTROL
VR8 LENS IRIS CONTROL
R163 1.5K
R164 1.5K
R165 1.5K
R166 1.5K
R159 1.5K
R160 1.5K
R161 1.5K
R162 1.5K
R157 1.5K
R158 1.5K
R144 1.5K
R145 1.5K
VR1 20K
VR2 20K
VR3 20K
VR4 20K
VR7 20K
VR8 20K
C80 0.47μF 50V
C81 0.47μF 50V
C78 0.47μF 50V
C79 0.47μF 50V
C77 0.47μF 50V
C70 0.47μF 50V
SW7 ELECTRONIC SHUTTER SPEED SELECTION SWITCH
R179
R180
R181
R182
R183
R184
R185
R186
R179~R186 3.9K x 8
1/2000
1/1000
1/500
1/250
1/100
OFF
R168 470
C87 0.1μ
R169 6.8K
SW11 SCENE SELECTION SWITCH
USER SET
R170 10K
R171 20K
C83 0.1μF
SW10 LENS IRIS SELECTION SWITCH
AUTO
MAN
R151 10K
R152 20K
C73 0.1μF
SW9 SC PHASE COARSE SWITCH
R197 470
R198 6.8K
270°
180°
90°
0°
R199 10K
R200 20K
C92 0.1μF
VR5 HORIZONTAL PHASE CONTROL
VR6 SC PHASE FINE CONTROL
R146 1.5K
R147 1.5K
VR5 20K
C71 0.47μF 50V
R155 1.5K
R156 1.5K
VR6 20K
C76 0.47μF 50V
SW13 ENC/VF SELECTION SWITCH
ENC/USER SET OFF
ENC/USER SET ON
VF/USER SET ON
NC
C93 47μF 6.3V
R192 470
R193 20K
R201 13K
R194 39K
C94 47μF 4V
SW19 USER SET OFF SWITCH
R202 470
C89 0.1μF
SW14 USER SET PAGE SWITCH
SW15 USER SET ITEM SWITCH
SW16 USER SET UP SWITCH
SW17 USER SET DOWN SWITCH
R167 47K
R154 47K
R175 47K
R196 47K
C82 0.47μF 50V
C75 0.47μF 50V
C85 0.47μF 50V
C91 0.47μF 50V
IC6
IC7
IC9
IC11(d)
IC11(a)
IC11(b)
X4 X6 XOUT X7 X5 INH VEE VSS VDD X2 X1 X0 X3 A B C
Y4 Y6 YOUT Y7 Y5 INH VEE VSS VDD Y2 Y1 Y0 Y3 A B C
V4 V6 VOUT V7 V5 INH VEE VSS VDD V2 V1 V0 V3 A B C
R153 47K
C74 0.47μF 50V
C21 47μF 6.3V
C22 47μF 6.3V
C24 47μF 6.3V
C28 47μF 16V
C25 100PF
C26 100PF
C45 100PF
+9V
69
56
68
55
58
59
72
74
71
75
76
77
51
52
54
78
79
26
23
25
27
57
53
61
63
64
65
67
73
2
1
21
19
17
29
30
28

CHEMATIC DIAGRAM OF SWITCH BOARD FOR REMOTE CONTROL BOX WV-CB700


REC SWITCH BOARD
SW12 REC SWITCH (TALLY INDICATOR)
CN8
CN9
REC TRIGGER
GROUND
TALLY
+9V
SW2 6dB GAIN SELECTION SWITCH
SW3 COLOR BAR CAMERA SELECTION SWITCH
SW4 DETAIL LEVEL SELECTION SWITCH
+6dB
OFF
-6dB
CAM
BAR
HIGH
LOW
IC6
IC7
IC9
+5V
+4V
+1V
VR1 RED GAIN CONTROL
VR2 BLUE GAIN CONTROL
VR3 RED PEDESTAL LEVEL CONTROL
VR4 BLUE PEDESTAL LEVEL CONTROL
VR7 TOTAL PEDESTAL LEVEL CONTROL
VR8 LENS IRIS CONTROL
D11 AUTO WARNING INDICATOR
D12 REMOTE CONTROL BOX POWER INDICATOR
+9V IN
Q4
Q5
Q6
SW10 LENS IRIS SELECTION SWITCH
AUTO
MAN
SW9 SC PHASE COARSE SWITCH
270°
180°
90°
0°
VR5 HORIZONTAL PHASE CONTROL
VR6 SC PHASE FINE CONTROL
IC11(d)
IC11(a)
IC11(b)
SW14 USER SET PAGE SWITCH
SW15 USER SET ITEM SWITCH
SW16 USER SET UP SWITCH
SW17 USER SET DOWN SWITCH
CN7
1 USER
2 ROP/RCU/ADP
3 +9V
4 +9V
5 +5V
6 +5V
7 GROUND
8 GROUND
9 GROUND
10 GROUND
11 RCB POWER
12 +9V IN
13 AUTO WARNING
14 +9V IN
15 TALLY
16 +4V
17 SEL C
18 +4V
19 SEL B
20 +1V
21 SEL A
22 +1V
23 USER SET ITEM
24 REC TRIGGER
25 USER SET UP
26 USER SET PAGE
27 USER SET DOWN
28 CONTROL OUT 3
29 CONTROL OUT 1
30 CONTROL OUT 2
To MAIN BOARD ---- CN6
TP1 (GROUND)
3
4
5
6
7
8

CONDUCTOR VIEW OF SWITCH BOARD FOR REMOTE CONTROL BOX WV-CB700

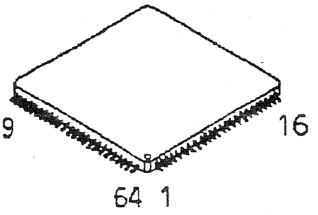

SWITCH BOARD
SWITCH BOARD
REC SWITCH BOARD (COMPONENT SIDE)
MHE6794V-0
VRZRCB7P3A (REC)
SW12
CN9
CN9
CN8
CN8
VRZRCB7P2B (RCB SW)
TSD-5V-0
VRZRCB7P2B(RCB SW)
TSD-5V-0
(COMPONENT SIDE)
(PATTERN SIDE)
B
A
1
2
3
4

⟨Index⟩
SWITCH BOARD

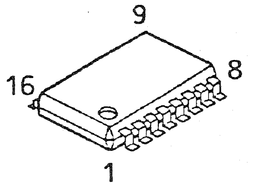
IC6	B3
IC7	B3
IC9	B3
IC11	A4
Q4	A4
Q5	B4
Q6	B4
D11	B1
D12	B1

APPEARANCE OF IC, TRANSISTOR AND DIODE

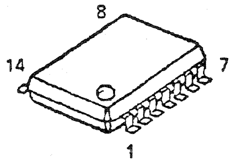
YWMN18888



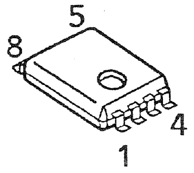
MN4050BS YWUPD4528BG
MN4051BS YWUPD4053BG
MN4052BS MN4538BS
MN4053BS MN74HC221S
MN4520BS YWTL1451CNS



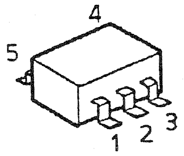
MN74HC125S NJM1496M
MN74HC08S YWCX20095A
MN74HC32S YWUPD4071BG
MN74HC74S YWUPC4064G2
YWUPD4001BG MN74HC393S
YWUPD4081BG MN74HC132S
MN4011BS



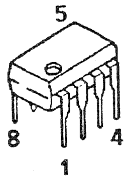
NJM386M TL092CPS
NJM2902M TLC272CPS
NJM2903M YWLM1881M
NJM2904M YWM51957BFP
NJM4556M NJM555M
NJM592M8 YWNJM2243M



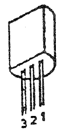
YWTC7S08F
YWTC4S66FR
YWTC4S69F
YWTC4S71F
YWTC4S81FR



YWSN16913P

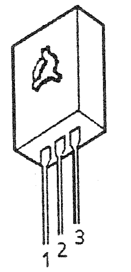


AN1431T
NJM78L05A

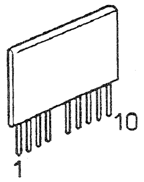


1 : Input
2 : Ground
3 : Output

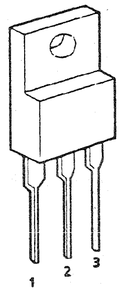
AN78N05
YWNJM78M05FA



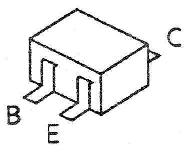
EH -16
EH -17



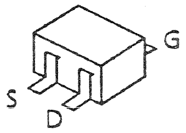
YWNJM7824A



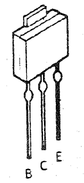
2SA1022-C 2SB792A-RS
2SB709-RS 2SB1219-QRS
2SD814-QRS 2SC2404-CD
NTM3906-T2B 2SD1819-QRS
YWNTM3904 2SD601-QR
2SC3757-Q 2SB709A-S
2SD1328-RS



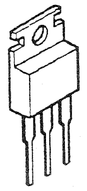
2SK198-Q



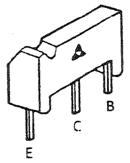
2SJ132



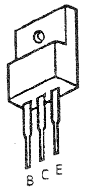
2SJ122



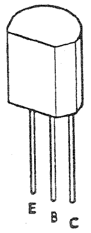
2SB793-RS
2SB819



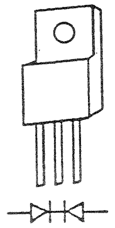
2SD1913



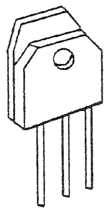
2SB560E
2SC3694L



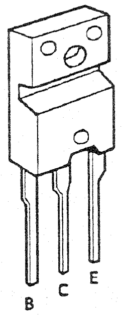
YWFML-335



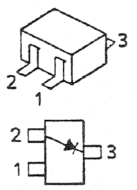
2SK956
2SK1082



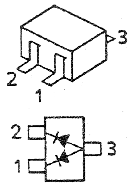
2SC3694L



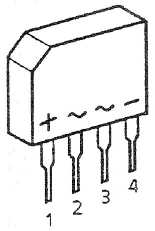
MA151K
MA182



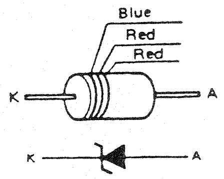
MA151WA



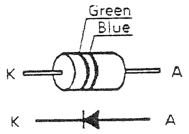
YWD3SBA60



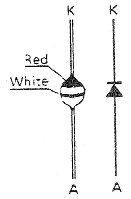
MA1062-L


Blue
Red
Red
K
A
K
A

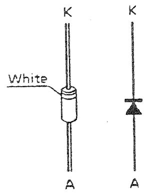
1SS97-2


Green
Blue
K
A
K
A

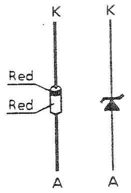
V03G


K K
Red
White
A A

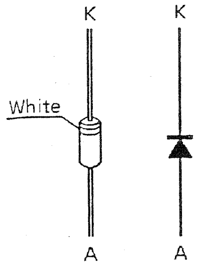
MA165



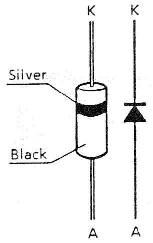
YWRD62EB
YWRD24EB1
YWRDE03B4
YWRD30EB3


K K
Red
Red
A A

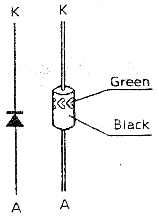
YWERB38-05
YWER38-05
ERD38-06



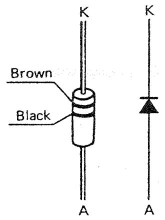
RGP10K


K K
Silver
Black
A A

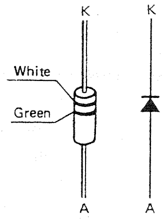
YWER848-05
YWER48-05


K K
Green
Black
A A

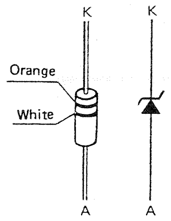
YWRD10FB


K K
Brown
Black
A A

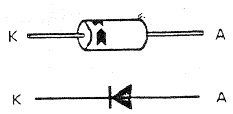
MA182


K K
White
Green
A A

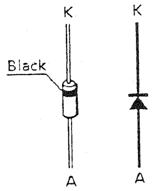
MA1130


K K
Orange
White
A A

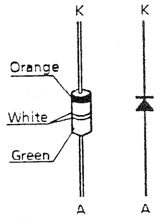
YWEA81-004



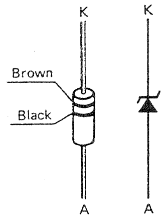
YWHZ2BLL



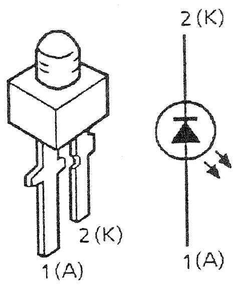
MA1039-M


K K
Orange
White
Green
A A

MA1100-H


K K
Brown
Black
A A

LN338GHP
LN238RHP

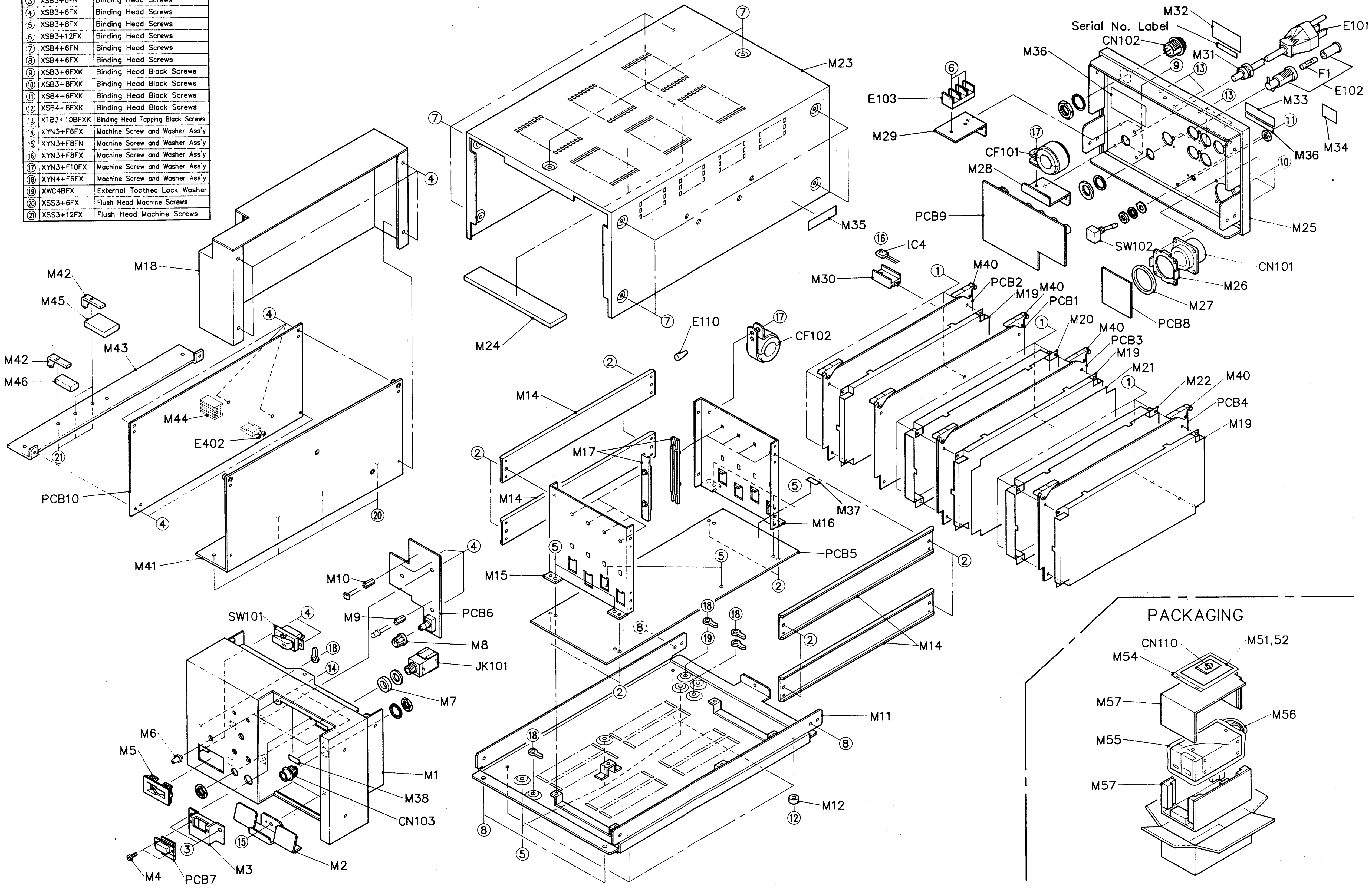


EXPLODED VIEW AND PACKAGING

REMOTE CONTROL UNIT WV-RC700

◌ Numbers show screws, washers, nuts, etc.

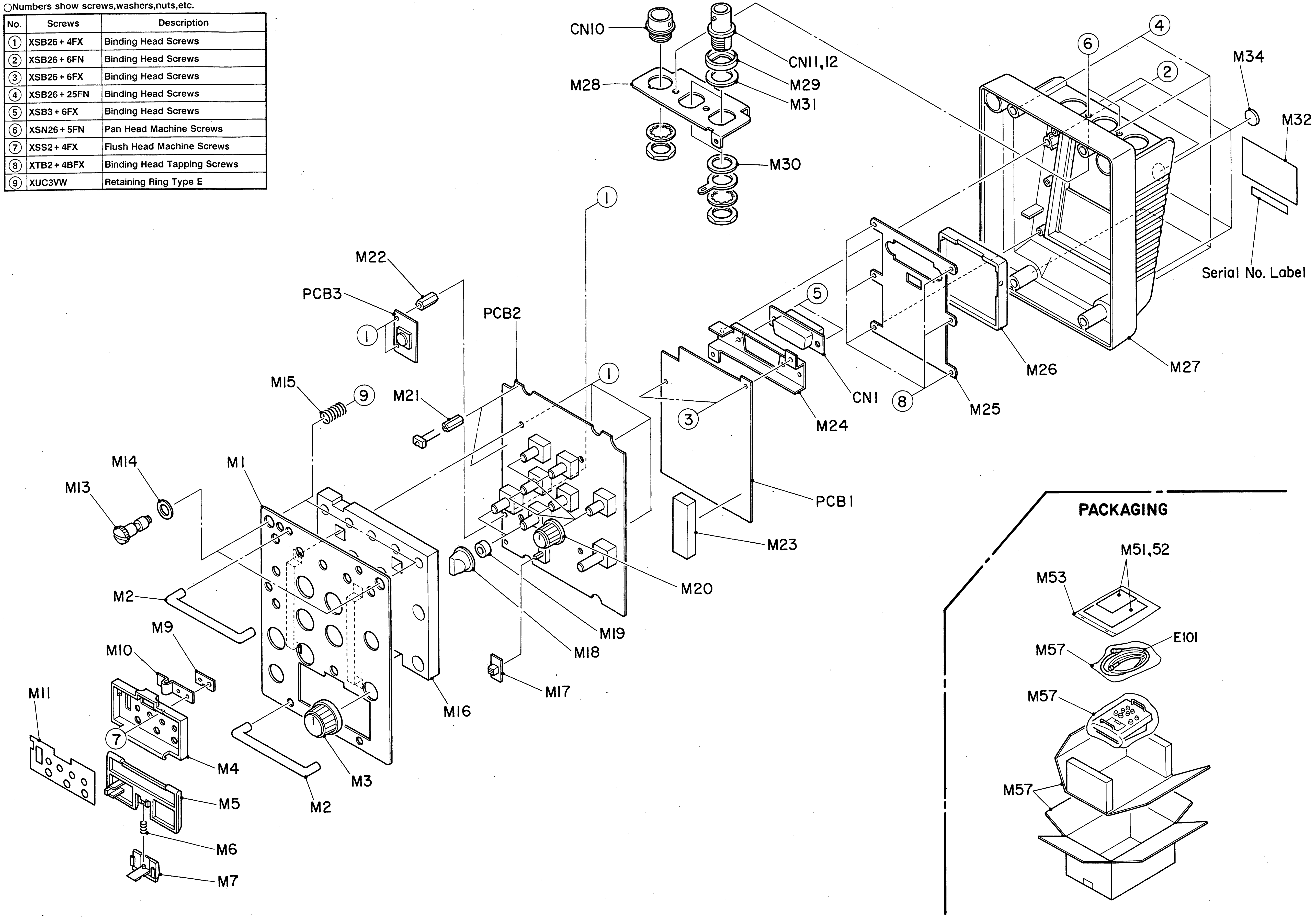
No.	Screws	Description
①	XSB26+6FX	Binding Head Screws
②	XSB3+5FX	Binding Head Screws
③	XSB3+6FN	Binding Head Screws
④	XSB3+6FX	Binding Head Screws
⑤	XSB3+8FX	Binding Head Screws
⑥	XSB3+12FX	Binding Head Screws
⑦	XSB4+6FN	Binding Head Screws
⑧	XSB4+6FX	Binding Head Screws
⑨	XSB3+6FXK	Binding Head Black Screws
⑩	XSB3+8FXK	Binding Head Black Screws
⑪	XSB4+6FXK	Binding Head Black Screws
⑫	XSB4+8FXK	Binding Head Black Screws
⑬	XTB3+10BFXK	Binding Head Tapping Black Screws
⑭	XYN3+F6FX	Machine Screw and Washer Ass'y
⑮	XYN3+F8FN	Machine Screw and Washer Ass'y
⑯	XYN3+F8FX	Machine Screw and Washer Ass'y
⑰	XYN3+F10FX	Machine Screw and Washer Ass'y
⑱	XYN4+F6FX	Machine Screw and Washer Ass'y
⑲	XWC4BFX	External Toothed Lock Washer
⑳	XSS3+6FX	Flush Head Machine Screws
㉑	XSS3+12FX	Flush Head Machine Screws


M32
Serial No. Label
CN102
M36
M31
E101
F1
E102
M33
M34
M25
CN101
M26
M27
PCB8
SW102
E103
M29
CF101
M28
PCB9
M23
M35
IC4
M30
M40
PCB2
M19
PCB1
M20
PCB3
M21
M22
PCB4
E110
CF102
M24
M18
M42
M45
M43
M46
M44
E402
PCB10
M41
M14
M17
M37
M16
PCB5
M15
M10
M9
PCB6
M8
JK101
M7
SW101
M6
M5
M1
M38
CN103
M4
PCB7
M3
M2
M11
M12
PACKAGING
CN110
M51,52
M54
M57
M56
M55
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱ ⑲ ⑳ ㉑ ⑩

REMOTE CONTROL BOX WV-CB700

○Numbers show screws,washers,nuts,etc.

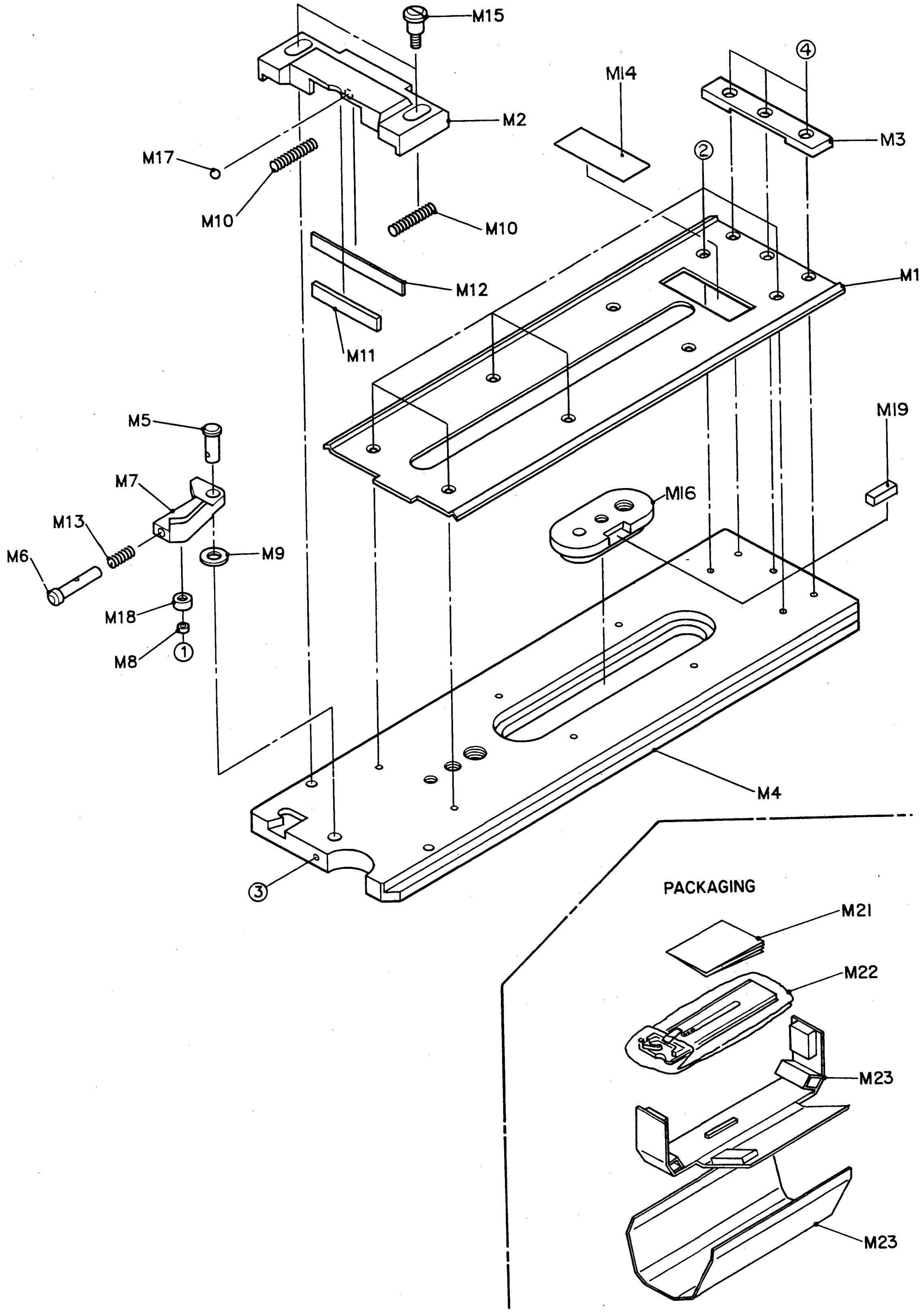
No.	Screws	Description
①	XSB26 + 4FX	Binding Head Screws
②	XSB26 + 6FN	Binding Head Screws
③	XSB26 + 6FX	Binding Head Screws
④	XSB26 + 25FN	Binding Head Screws
⑤	XSB3 + 6FX	Binding Head Screws
⑥	XSN26 + 5FN	Pan Head Machine Screws
⑦	XSS2 + 4FX	Flush Head Machine Screws
⑧	XTB2 + 4BFX	Binding Head Tapping Screws
⑨	XUC3VW	Retaining Ring Type E


CN10
CN11,12
M28
M29
M31
M30
④
⑥
②
M34
M32
Serial No. Label
①
M22
PCB3
①
PCB2
①
⑤
CN1
⑧
M26
M27
M25
M15
⑨
M21
③
M24
M14
M1
M13
PCB1
M23
M20
M2
M19
M9
M18
M10
M17
M11
M16
⑦
M4
M3
M5
M2
M6
M7
PACKAGING
M51,52
M53
M57
E101
M57
M57

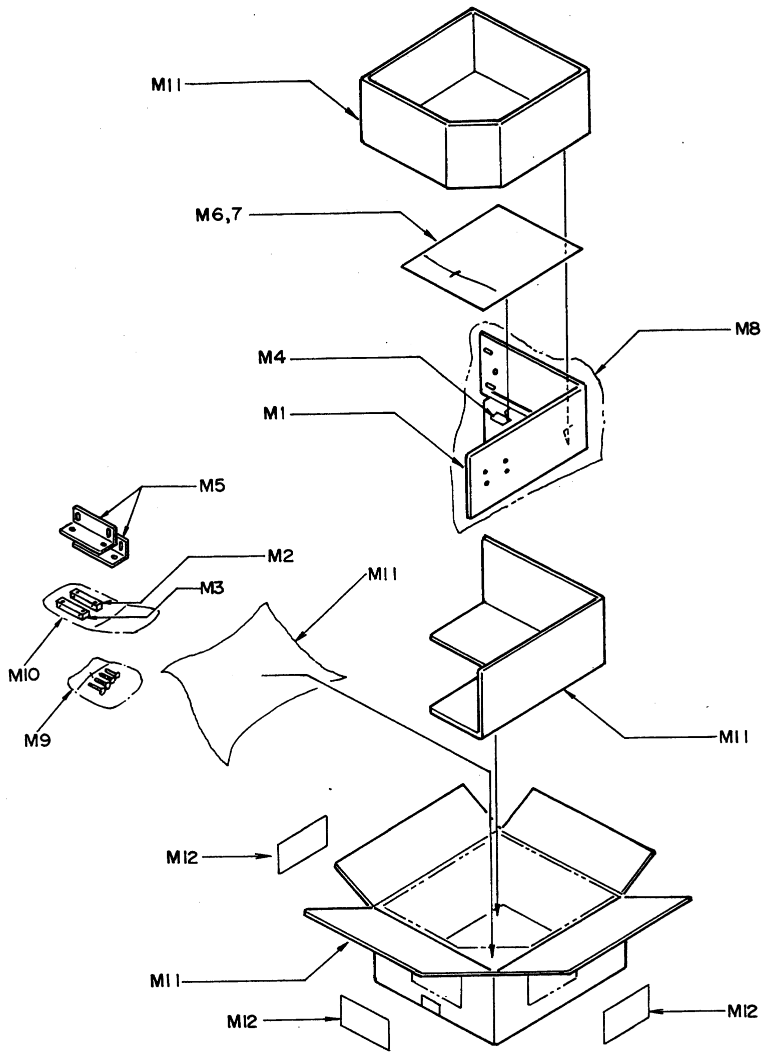
TRIPOD MOUNTING ADAPTOR WV-QT700

○ Numbers show screws.

No.	Screws	Description
①	XSB3 + 4FXK	Binding Head Black Screws
②	XSS3 + 6FXK	Flush Head
③	XPL25A18WV	Pin
④	XVE3A8FXK	Binding Head Black Screw


M15
M14
④
M2
M3
M17
M10
M10
②
M12
M1
M11
M19
M5
M7
M13
M6
M9
M16
M18
M8
①
M4
③
PACKAGING
M21
M22
M23
M23

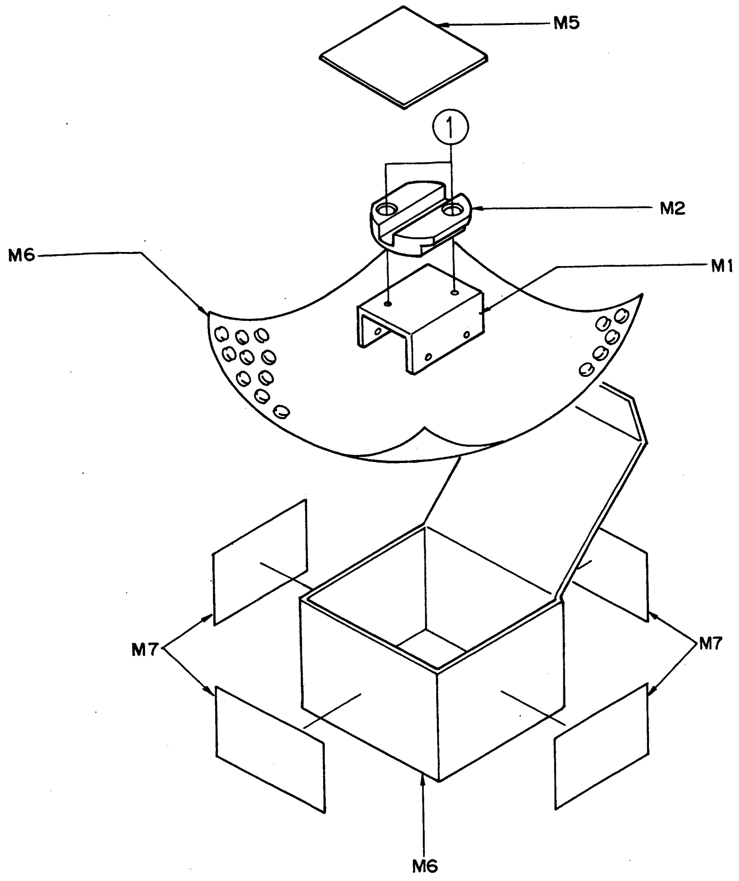
REMOTE CONTROL UNIT RACK MOUNT FRAME WV-Q70


M11
M6,7
M8
M4
M1
M5
M2
M3
M11
M10
M9
M11
M12
M11
M12
M12

5″ VIEWFINDER MOUNTING BRACKET WV-Q71

○ Numbers show screws.

No.	Screws	Description
①	XSB4 + 8FN	Binding Head Screws


M5
①
M2
M1
M6
M7
M7
M6

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "⚠" mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.

REMOTE CONTROL UNIT

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
SW101 ⚠	YWEST15147V	Power Switch
SW102	YWMTL7201G1	Toggle Switch
CF101	YWTRCN16813	Filter
CF102	YWTRCN281620	Filter
JK101	YWLJ194-1-1	Intercom Jack
F1 ⚠	XBA2C12ET0A	Fuse 1.2A 250V
F2 ⚠	XBA2C31ET0A	Fuse 3.1A 250V
F3 ⚠	XBA2C08ET0A	Fuse 0.8A 250V
CN102	YFCNR-1204J	Tally/Intercom Connector
CN103	HR10A10R10S	10-pin Connector
E101 ⚠	YWKPGTSA-3	AC Power Cord for WV-RC700/A
	YWHBS-3-08	AC Power Cord for WV-RC700/B
	YWVM0309-08	AC Power Cord for WV-RC700/G
E102	YFFH-B02	Fuse Holder
E103	YWML504G1	Terminal
E110	YFCD20ACCAP	Insulator Tube
M1	YWV2KA0700B1	Chassis
M2	YWV2SA1970A4	Mounting Angle
M3	YWV2SA1969A4	Mounting Angle
M4	YWV1EA0218A4	Special Screw
M5	YWV5EA0765A3	Switch Cover
M6	YWV2JA0079A4	Bracing Strut
M7	YWV2NA0369A4	Jack Spacer
M8	YWV5RA0279B3	Knob
M11	YWV2KA0702A1	Main Chassis
M12	YWK17N0-7039	Rubber Foot
M14	YWV2SA1971A3	Mounting Angle (X4)
M15	YWV2SA1972A3	Mounting Angle
M16	YWV2SA1973A3	Mounting Angle
M17	YWGR80S	Guide (X8)
M18	YWV5EA1049A1	Power Supply Cover
M21	YWV2PA0480A3	Insulator Plate
M23	YWV5EA1048A1	Upper Cover
M24	YWV2FA0539A4	Cushion
M25	YWV2KC0701A2	Rear Chassis
M28	YWV2SA1968A4	Mounting Angle for Filter
MN29	YWV2SA2273A4	Mounting Angle for Terminal
M31	YWSR6W1	Cord Clamp

REF.NO.	PART NO.	DESCRIPTION
M32 ⚠	YWV7QA2738A4	Main Label for WV-RC700/A
	YWV7QA2739A4	Main Label for WV-RC700.B
	YWV7QA2739A4	Main Label for WV-RC700.G
M33	YWV7MA0081A4	Safety Label
M34	YWV7MA0338A4	SEE Monual Label
M35	YFV7MA0099A4	Caution Label
M36	YWV7MA0015A4	LN Earth Label
M37	YWV7MA0402A4	Fuse Rated Label
M38	YWV7SA1431A4	RCB Label
M39	MSP128ALCA01	Chassis for Power Supply

VIDEO BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB1 (NLA)	YWVKZRCU7E1A	Printed Circuit Board Assy
IC1	YWUPD4053BG	IC
IC2	YWLM1881M	IC
IC3	YWUPD4528BG	IC
IC4	YWUPC4064G2	IC
IC5	YWUPC4062G2	IC
IC6	NJM1496M	IC
IC7-9	YWTC4S66FR	IC
IC10	NJM1496M	IC
IC11	YWCX20095A	IC
IC201	YWUPC4062G2	IC
IC202,203	NJM1496M	IC
IC204	YWNJM2243M	IC
IC301	YWUPC4062G2	IC
IC302,303	NJM1496M	IC
IC304	YWNJM2243M	IC
IC401	YWUPC4062G2	IC
IC402,403	NJM1496M	IC
IC404	YWCX20095A	IC
IC501	NJM2903M	IC
IC502	YWCX20095A	IC
IC601	YWLM1881M	IC
IC602	YWUPD4001BG	IC
IC603	YWUPD4053BG	IC
IC701	YWUPD4001BG	IC
IC702	YWUPD4071BG	IC
IC703	YWUPD4001BG	IC
IC704,705	YWUPD4081BG	IC
IC801	NJM386M	IC
IC802	NJM2904M	IC
Q1-3	2SC2404-CD	Transistor
Q4	2SD601-RS	Transistor
Q5	2SB709-RS	Transistor
Q6-12	2SD601-RS	Transistor
Q13,14	2SC2404-CD	Transistor
Q15	2SD601-RS	Transistor
Q16	2SK198-Q	Transistor
Q17	2SB709-RS	Transistor
Q18,19	2SD601-RS	Transistor
Q20	2SB709-RS	Transistor
Q21,22	2SD601-RS	Transistor
Q23	2SC2404-CD	Transistor
Q24	2SD601-RS	Transistor
Q201-203	2SC2404-CD	Transistor
Q204-208	2SD601-RS	Transistor
Q209,210	2SC2404-CD	Transistor
Q211	2SD601-RS	Transistor
Q212	2SK198-Q	Transistor
Q213	2SB709-RS	Transistor
Q214,215	2SD601-RS	Transistor

REF.NO.	PART NO.	DESCRIPTION	
Q216	2SB709-RS	Transistor	
Q217	2SD601-RS	Transistor	
Q301-303	2SC2404-CD	Transistor	
Q304-308	2SD601-RS	Transistor	
Q309,310	2SC2404-CD	Transistor	
Q311	2SD601-RS	Transistor	
Q312	2SK198-Q	Transistor	
Q313	2SB709-RS	Transistor	
Q314,315	2SD601-RS	Transistor	
Q316	2SB709-RS	Transistor	
Q317	2SD601-RS	Transistor	
Q401-403	2SC2404-CD	Transistor	
Q404-408	2SD601-RS	Transistor	
Q409,410	2SC2404-CD	Transistor	
Q411	2SD601-RS	Transistor	
Q412	2SK198-Q	Transistor	
Q413	2SB709-RS	Transistor	
Q414,415	2SD601-RS	Transistor	
Q416	2SB709-RS	Transistor	
Q417,418	2SD601-RS	Transistor	
Q501	2SD601-RS	Transistor	
Q502	2SK198-Q	Transistor	
Q503,504	2SD601-RS	Transistor	
Q601	2SD601-RS	Transistor	
Q602	2SB709-RS	Transistor	
Q603-606	2SD601-RS	Transistor	
Q607	2SK198-Q	Transistor	
Q608-610	2SD601-RS	Transistor	
Q611	2SD602-QRS	Transistor	
Q612	2SB710-QRS	Transistor	
Q701-706	2SD601-RS	Transistor	
Q801-805	2SD601-RS	Transistor	
Q901-903	2SD601-RS	Transistor	
D1,2	MA151K	Diode	
D201,301	MA151K	Diode	
D401,801	MA151K	Diode	
R1	YF2116750JT	Carbon	75 ohms 1/16W
R2	YF2116223JT	Carbon	22K ohms 1/16W
R3	YF2116103JT	Carbon	10K ohms 1/16W
R4	YF2116102GT	Carbon	1K ohms 1/16W
R5	YF2116752JT	Carbon	7.5K ohms 1/16W
R6	YF2116113JT	Carbon	11K ohms 1/16W
R7	YF2116362JT	Carbon	3.6K ohms 1/16W
R8	YF21160R00T	Carbon	0 ohms 1/16W
R9	YF2116152JT	Carbon	1.5K ohms 1/16W
R10	YF2116472GT	Carbon	4.7K ohms 1/16W
R11	YF2116221JT	Carbon	220 ohms 1/16W
R12	YF2116272JT	Carbon	2.7K ohms 1/16W
R13	YF2116183GT	Carbon	18K ohms 1/16W
R14	YF2116153JT	Carbon	15K ohms 1/16W
R15	YF2116122JT	Carbon	1.2K ohms 1/16W
R17	YF2116224JT	Carbon	220K ohms 1/16W
R18	YF2116472GT	Carbon	4.7K ohms 1/16W
R19	YF2116101JT	Carbon	100 ohms 1/10W
R20	YF2116564JT	Carbon	560K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R21	YF2116204JT	Carbon	200K ohms 1/16W
R22	YF2116563JT	Carbon	56K ohms 1/16W
R23	YF2116153JT	Carbon	15K ohms 1/16W
R24	YF2116103JT	Carbon	10K ohms 1/16W
R25	YF2116102GT	Carbon	1K ohms 1/16W
R26	YF2116202JT	Carbon	2K ohms 1/16W
R27	YF2116332JT	Carbon	3.3K ohms 1/16W
R28	YF2116102GT	Carbon	1K ohms 1/16W
R29	YF2116272JT	Carbon	2.7K ohms 1/16W
R30	YF2116122JT	Carbon	1.2K ohms 1/16W
R31	YF2116103JT	Carbon	10K ohms 1/16W
R32	YWR1220P332D	Metal	3.3K ohms
R33	YF2116103JT	Carbon	10K ohms 1/16W
R34	YWR1220P102D	Metal	1K ohms
R35	YWR1220P471D	Metal	470 ohms
R36	YF2116103JT	Carbon	10K ohms 1/16W
R37	R1220P822D	Metal	8.2K ohms
R38	YWR1220P101D	Metal	100 ohms
R39	YF2116103JT	Carbon	10K ohms 1/16W
R40	YWR1220P301D	Metal	300 ohms
R42	YF2116103JT	Carbon	10K ohms 1/16W
R43	YWR1220P391D	Metal	390 ohms
R44	R1220P123D	Metal	12K ohms
R45	YF2116103JT	Carbon	10K ohms 1/16W
R46	YWR1220P122D	Metal	1.2K ohms
R47	YWR1220P103D	Metal	10K ohms
R49	YFR1220P392D	Metal	3.9K ohms
R50	YWR1220P562D	Metal	5.6K ohms
R51	YF2116561JT	Carbon	560 ohms 1/16W
R52	YF2116471JT	Carbon	470 ohms 1/16W
R53	YF2116681JT	Carbon	680 ohms 1/16W
R54,55	YF2116821GT	Carbon	820 ohms 1/16W
R56	YF2116201JT	Carbon	200 ohms 1/16W
R57	YF2116241JT	Carbon	240 ohms 1/16W
R58,59	YF2116822JT	Carbon	8.2K ohms 1/16W
R60	YF2116303GT	Carbon	30K ohms 1/16W
R61	YF2116333GT	Carbon	33K ohms 1/16W
R62	YF2116153JT	Carbon	15K ohms 1/16W
R63	YF2116102GT	Carbon	1K ohms 1/16W
R64	R1220P133D	Metal	13K ohms
R65,66	R1220P681D	Metal	680 ohms
R67	YWR1220P362D	Metal	3.6K ohms
R68	YW2116182JT	Carbon	1.8K ohms 1/16W
R69	YF21160R00T	Carbon	Jumper Resistor
R70	YF2116333GT	Carbon	33K ohms 1/16W
R71	YF2116153JT	Carbon	15K ohms 1/16W
R72	YF2116222GT	Carbon	2.2K ohms 1/16W
R73	YF2116561JT	Carbon	560 ohms 1/16W
R74	YF2116132JT	Carbon	1.3K ohms 1/16W
R75	YF2116561JT	Carbon	560 ohms 1/16W
R76,77	YF2116331JT	Carbon	330 ohms 1/16W
R78	YF2116101JT	Carbon	100 ohms 1/10W
R79,80	YF2116271JT	Carbon	270 ohms 1/16W
R81	YF2116472GT	Carbon	4.7K ohms 1/16W
R82	YWR1220P472D	Metal	4.7K ohms

REF.NO.	PART NO.	DESCRIPTION	
R83	YWR1220P562D	Metal	5.6K ohms
R84	YF2116272JT	Carbon	2.7K ohms 1/16W
R85	YF2116222GT	Carbon	2.2K ohms 1/16W
R86	YF2116223JT	Carbon	22K ohms 1/16W
R87	YF2116183GT	Carbon	18K ohms 1/16W
R88	YF2116103JT	Carbon	10K ohms 1/16W
R89	YF2116102GT	Carbon	1K ohms 1/16W
R90	YF2116821GT	Carbon	820 ohms 1/16W
R92	YF2116751JT	Carbon	750 ohms 1/16W
R93	YF2116223JT	Carbon	22K ohms 1/16W
R94	YF2116183GT	Carbon	18K ohms 1/16W
R95	YF2116752JT	Carbon	7.5K ohms 1/16W
R96	YF2116682JT	Carbon	6.8K ohms 1/16W
R97	YF2116681JT	Carbon	680 ohms 1/16W
R98	YF2116221JT	Carbon	220 ohms 1/16W
R99	YF2116272JT	Carbon	2.7K ohms 1/16W
R100	YF2116750JT	Carbon	75 ohms 1/16W
R101,102	YWR1220P332D	Metal	3.3K ohms
R103	YF2116750JT	Carbon	75 ohms 1/16W
R104	YWR1220P362D	Metal	3.6K ohms
R105	YWR1220P332D	Metal	3.3K ohms
R106	YF2116102GT	Carbon	1K ohms 1/16W
R107	YF2116101JT	Carbon	100 ohms 1/10W
R108,109	YF2116103JT	Carbon	10K ohms 1/16W
R110	YF2116472GT	Carbon	4.7K ohms 1/16W
R111,112	YF21160R00T	Carbon	0 ohms 1/10W
R114	YF2116122JT	Carbon	1.2K ohms 1/16W
R115	YF2116272JT	Carbon	2.7K ohms 1/16W
R116	YWR1220P202D	Metal	2K ohms
R117	YF21160R00T	Carbon	0 ohms 1/10W
R118	YF2116472GT	Carbon	4.7K ohms 1/16W
R201	YF2116750JT	Carbon	75 ohms 1/16W
R202	YF2116223JT	Carbon	22K ohms 1/16W
R203	YF2116103JT	Carbon	10K ohms 1/16W
R204	YF2116102GT	Carbon	1K ohms 1/16W
R205	YF2116752JT	Carbon	7.5K ohms 1/16W
R206	YF2116113JT	Carbon	11K ohms 1/16W
R207	YF2116362JT	Carbon	3.6K ohms 1/16W
R208	YF21160R00T	Carbon	0 ohms 1/10W
R209	YF2116152JT	Carbon	1.5K ohms 1/16W
R210	YF2116472GT	Carbon	4.7K ohms 1/16W
R211	YF2116221JT	Carbon	220 ohms 1/16W
R212	YF2116272JT	Carbon	2.7K ohms 1/16W
R213	YF2116103JT	Carbon	10K ohms 1/16W
R214	YWR1220P750D	Metal	75 ohms
R215	YWR1220P102D	Metal	1K ohms
R216	YWR1220P471D	Metal	470 ohms
R217	YF2116103JT	Carbon	10K ohms 1/16W
R218	R1220P822D	Metal	8.2K ohms
R219	YWR1220P101D	Metal	100 ohms
R220	YWR1220P301D	Metal	300 ohms
R222	YF2116103JT	Carbon	10K ohms 1/16W
R223	YWR1220P391D	Metal	390 ohms
R224	R1220P123D	Metal	12K ohms
R225	YWR1220P122D	Metal	1.2K ohms

REF.NO.	PART NO.	DESCRIPTION	
R226	YWR1220P103D	Metal	10K ohms
R228	YF2116183GT	Carbon	18K ohms 1/16W
R229	YF2116153JT	Carbon	15K ohms 1/16W
R230	YF2116122JT	Carbon	1.2K ohms 1/16W
R231	YWR1220P562D	Metal	5.6K ohms
R232	YFR1220P392D	Metal	3.9K ohms
R233	YF2116561JT	Carbon	560 ohms 1/16W
R234	YF2116471JT	Carbon	470 ohms 1/16W
R235	YF2116681JT	Carbon	680 ohms 1/16W
R236,237	YF2116821GT	Carbon	820 ohms 1/16W
R238	YF2116201JT	Carbon	200 ohms 1/16W
R239	YF2116241JT	Carbon	240 ohms 1/16W
R240,241	YF2116822JT	Carbon	8.2K ohms 1/16W
R242	YF2116303GT	Carbon	30K ohms 1/16W
R243	YF2116333GT	Carbon	33K ohms 1/16W
R244	YF2116153JT	Carbon	15K ohms 1/16W
R245	YF2116102GT	Carbon	1K ohms 1/16W
R246	YF2116362JT	Carbon	3.6K ohms 1/16W
R247	YWR1220P202D	Metal	2K ohms
R248	YW2116182JT	Carbon	1.8K ohms 1/16W
R249	YF2116102GT	Carbon	1K ohms 1/16W
R250	YF21160R00T	Carbon	0 ohms 1/16W
R251	YF2116333GT	Carbon	33K ohms 1/16W
R252	YF2116153JT	Carbon	15K ohms 1/16W
R253	YF2116222GT	Carbon	2.2K ohms 1/16W
R254	YF2116561JT	Carbon	560 ohms 1/16W
R255	YF2116132JT	Carbon	1.3K ohms 1/16W
R256	YF2116561JT	Carbon	560 ohms 1/16W
R257,258	YF2116331JT	Carbon	330 ohms 1/16W
R259	YF2116101JT	Carbon	100 ohms 1/10W
R260,261	YF2116271JT	Carbon	270 ohms 1/16W
R262	YF2116472GT	Carbon	4.7K ohms 1/16W
R263	YWR1220P472D	Metal	4.7K ohms
R264	YWR1220P562D	Metal	5.6K ohms
R265	YF2116222GT	Carbon	2.2K ohms 1/16W
R266	YF2116223JT	Carbon	22K ohms 1/16W
R267	YF2116183GT	Carbon	18K ohms 1/16W
R268	YF2116103JT	Carbon	10K ohms 1/16W
R269	YF2116102GT	Carbon	1K ohms 1/16W
R270	YF2116821GT	Carbon	820 ohms 1/16W
R272	YF2116751JT	Carbon	750 ohms 1/16W
R273	YF2116223JT	Carbon	22K ohms 1/16W
R274	YF2116183GT	Carbon	18K ohms 1/16W
R275	YF2116752JT	Carbon	7.5K ohms 1/16W
R276	YF2116682JT	Carbon	6.8K ohms 1/16W
R277	YF2116681JT	Carbon	680 ohms 1/16W
R278	YF2116221JT	Carbon	220 ohms 1/16W
R279	YF2116272JT	Carbon	2.7K ohms 1/16W
R280	YF2116223JT	Carbon	22K ohms 1/16W
R281	YF2116750JT	Carbon	75 ohms 1/16W
R282	YF2116101JT	Carbon	100 ohms 1/16W
R283	YF21160R00T	Carbon	0 ohms 1/16W
R284	YWR1220P472D	Metal	4.7K ohms
R301	YF2116750JT	Carbon	75 ohms 1/16W
R302	YF2116223JT	Carbon	22K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R303	YF2116103JT	Carbon	10K ohms 1/16W
R304	YF2116102GT	Carbon	1K ohms 1/16W
R305	YF2116752JT	Carbon	7.5K ohms 1/16W
R306	YF2116113JT	Carbon	11K ohms 1/16W
R307	YF2116362JT	Carbon	3.6K ohms 1/16W
R308	YF21160R00T	Carbon	0 ohms 1/16W
R309	YF2116152JT	Carbon	1.5K ohms 1/16W
R310	YF2116472GT	Carbon	4.7K ohms 1/16W
R311	YF2116221JT	Carbon	220 ohms 1/16W
R312	YF2116272JT	Carbon	2.7K ohms 1/16W
R313	YF2116103JT	Carbon	10K ohms 1/16W
R314	YWR1220P750D	Metal	75 ohms
R315	YWR1220P102D	Metal	1K ohms
R316	YWR1220P471D	Metal	470 ohms
R317	YF2116103JT	Carbon	10K ohms 1/16W
R318	R1220P822D	Metal	8.2K ohms
R319	YWR1220P101D	Metal	100 ohms
R320	YWR1220P301D	Metal	300 ohms
R322	YF2116103JT	Carbon	10K ohms 1/16W
R323	YWR1220P391D	Metal	390 ohms
R324	R1220P123D	Metal	12K ohms
R325	YWR1220P122D	Metal	1.2K ohms
R326	YWR1220P103D	Metal	10K ohms
R328	YF2116183GT	Carbon	18K ohms 1/16W
R329	YF2116153JT	Carbon	15K ohms 1/16W
R330	YF2116122JT	Carbon	1.2K ohms 1/16W
R331	YWR1220P562D	Metal	5.6K ohms
R332	YFR1220P392D	Metal	3.9K ohms
R333	YF2116561JT	Carbon	560 ohms 1/16W
R334	YF2116471JT	Carbon	470 ohms 1/16W
R335	YF2116681JT	Carbon	680 ohms 1/16W
R336,337	YF2116821GT	Carbon	820 ohms 1/16W
R338	YF2116201JT	Carbon	200 ohms 1/16W
R339	YF2116241JT	Carbon	240 ohms 1/16W
R340,341	YF2116822JT	Carbon	8.2K ohms 1/16W
R342	YF2116303GT	Carbon	30K ohms 1/16W
R343	YF2116333GT	Carbon	33K ohms 1/16W
R344	YF2116153JT	Carbon	15K ohms 1/16W
R345	YF2116102GT	Carbon	1K ohms 1/16W
R346	YF2116362JT	Carbon	3.6K ohms 1/16W
R347	YWR1220P202D	Metal	2K ohms
R348	YW2116182JT	Carbon	1.8K ohms 1/16W
R349	YF2116102GT	Carbon	1K ohms 1/16W
R350	YF21160R00T	Carbon	0 ohms 1/16W
R351	YF2116333GT	Carbon	33K ohms 1/16W
R352	YF2116153JT	Carbon	15K ohms 1/16W
R353	YF2116222GT	Carbon	2.2K ohms 1/16W
R354	YF2116561JT	Carbon	560 ohms 1/16W
R355	YF2116132JT	Carbon	1.3K ohms 1/16W
R356	YF2116561JT	Carbon	560 ohms 1/16W
R357,358	YF2116331JT	Carbon	330 ohms 1/16W
R359	YF2116101JT	Carbon	100 ohms 1/10W
R360,361	YF2116271JT	Carbon	270 ohms 1/16W
R362	YF2116472GT	Carbon	4.7K ohms 1/16W
R363	YWR1220P472D	Metal	4.7K ohms

REF.NO.	PART NO.	DESCRIPTION	
R364	YWR1220P562D	Metal	5.6K ohms
R365	YF2116222GT	Carbon	2.2K ohms 1/16W
R366	YF2116223JT	Carbon	22K ohms 1/16W
R367	YF2116183GT	Carbon	18K ohms 1/16W
R368	YF2116103JT	Carbon	10K ohms 1/16W
R369	YF2116102GT	Carbon	1K ohms 1/16W
R370	YF2116821GT	Carbon	820 ohms 1/16W
R372	YF2116751JT	Carbon	750 ohms 1/16W
R373	YF2116223JT	Carbon	22K ohms 1/16W
R374	YF2116183GT	Carbon	18K ohms 1/16W
R375	YF2116752JT	Carbon	7.5K ohms 1/16W
R376	YF2116682JT	Carbon	6.8K ohms 1/16W
R377	YF2116681JT	Carbon	680 ohms 1/16W
R378	YF2116221JT	Carbon	220 ohms 1/16W
R379	YF2116272JT	Carbon	2.7K ohms 1/16W
R380	YF2116223JT	Carbon	22K ohms 1/16W
R381	YF2116750JT	Carbon	75 ohms 1/16W
R382	YF2116101JT	Carbon	100 ohms 1/16W
R383	YF21160R00T	Carbon	0 ohms 1/16W
R384	YWR1220P472D	Metal	4.7K ohms
R401	YF2116750JT	Carbon	75 ohms 1/16W
R402	YF2116223JT	Carbon	22K ohms 1/16W
R403	YF2116103JT	Carbon	10K ohms 1/16W
R404	YF2116102GT	Carbon	1K ohms 1/16W
R405	YF2116752JT	Carbon	7.5K ohms 1/16W
R406	YF2116113JT	Carbon	11K ohms 1/16W
R407	YF2116362JT	Carbon	3.6K ohms 1/16W
R408	YF21160R00T	Carbon	0 ohms 1/16W
R409	YF2116152JT	Carbon	1.5K ohms 1/16W
R410	YF2116472GT	Carbon	4.7K ohms 1/16W
R411	YF2116221JT	Carbon	220 ohms 1/16W
R412	YF2116272JT	Carbon	2.7K ohms 1/16W
R413	YF2116103JT	Carbon	10K ohms 1/16W
R414	YWR1220P750D	Metal	75 ohms
R415	YWR1220P102D	Metal	1K ohms
R416	YWR1220P471D	Metal	470 ohms
R417	YF2116103JT	Carbon	10K ohms 1/16W
R418	R1220P822D	Metal	8.2K ohms
R419	YWR1220P101D	Metal	100 ohms
R420	YWR1220P301D	Metal	300 ohms
R422	YF2116103JT	Carbon	10K ohms 1/16W
R423	YWR1220P391D	Metal	390 ohms
R424	R1220P123D	Metal	12K ohms
R425	YWR1220P122D	Metal	1.2K ohms
R426	YWR1220P103D	Metal	10K ohms
R428	YF2116183GT	Carbon	18K ohms 1/16W
R429	YF2116153JT	Carbon	15K ohms 1/16W
R430	YF2116122JT	Carbon	1.2K ohms 1/16W
R431	YWR1220P562D	Metal	5.6K ohms
R432	YFR1220P392D	Metal	3.9K ohms
R433	YF2116561JT	Carbon	560 ohms 1/16W
R434	YF2116471JT	Carbon	470 ohms 1/16W
R435	YF2116681JT	Carbon	680 ohms 1/16W
R436,437	YF2116821GT	Carbon	820 ohms 1/16W
R438	YF2116201JT	Carbon	200 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R439	YF2116241JT	Carbon	240 ohms 1/16W
R440,441	YF2116822JT	Carbon	8.2K ohms 1/16W
R442	YF2116303GT	Carbon	30K ohms 1/16W
R443	YF2116333GT	Carbon	33K ohms 1/16W
R444	YF2116153JT	Carbon	15K ohms 1/16W
R445	YF2116102GT	Carbon	1K ohms 1/16W
R446	YF2116362JT	Carbon	3.6K ohms 1/16W
R447	YWR1220P202D	Metal	2K ohms
R448	YW2116182JT	Carbon	1.8K ohms 1/16W
R449	YF2116102GT	Carbon	1K ohms 1/16W
R450	YF21160R00T	Carbon	0 ohms 1/16W
R451	YF2116333GT	Carbon	33K ohms 1/16W
R452	YF2116153JT	Carbon	15K ohms 1/16W
R453	YF2116222GT	Carbon	2.2K ohms 1/16W
R454	YF2116561JT	Carbon	560 ohms 1/16W
R455	YF2116132JT	Carbon	1.3K ohms 1/16W
R456	YF2116561JT	Carbon	560 ohms 1/16W
R457,458	YF2116331JT	Carbon	330 ohms 1/16W
R459	YF2116101JT	Carbon	100 ohms 1/16W
R460,461	YF2116271JT	Carbon	270 ohms 1/16W
R462	YF2116472GT	Carbon	4.7K ohms 1/16W
R463	YWR1220P472D	Metal	4.7K ohms
R464	YWR1220P562D	Metal	5.6K ohms
R465	YF2116222GT	Carbon	2.2K ohms 1/16W
R466	YF2116223JT	Carbon	22K ohms 1/16W
R467	YF2116183GT	Carbon	18K ohms 1/16W
R468	YF2116103JT	Carbon	10K ohms 1/16W
R469	YF2116102GT	Carbon	1K ohms 1/16W
R470	YF2116821GT	Carbon	820 ohms 1/16W
R472	YF2116751JT	Carbon	750 ohms 1/16W
R473	YF2116223JT	Carbon	22K ohms 1/16W
R474	YF2116183GT	Carbon	18K ohms 1/16W
R475	YF2116752JT	Carbon	7.5K ohms 1/16W
R476	YF2116682JT	Carbon	6.8K ohms 1/16W
R477	YF2116681JT	Carbon	680 ohms 1/16W
R478	YF2116221JT	Carbon	220 ohms 1/16W
R479	YF2116272JT	Carbon	2.7K ohms 1/16W
R480	YF2116750JT	Carbon	75 ohms 1/16W
R481,482	YWR1220P332D	Metal	3.3K ohms
R483	YF2116101JT	Carbon	100 ohms 1/16W
R484	YF21160R00T	Carbon	0 ohms 1/16W
R485	YWR1220P472D	Metal	4.7K ohms
R486	YF2116472GT	Carbon	4.7K ohms 1/16W
R501	YF2116273GT	Carbon	27K ohms 1/16W
R502	YF2116103JT	Carbon	10K ohms 1/16W
R503	YW2116182JT	Carbon	1.8K ohms 1/16W
R504	YF2116222GT	Carbon	2.2K ohms 1/16W
R505	YF2116183GT	Carbon	18K ohms 1/16W
R506	YF2116104JT	Carbon	100K ohms 1/16W
R507	YF2116432JT	Carbon	4.3K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R508	YW2116182JT	Carbon	1.8K ohms 1/16W
R509	YF2116273GT	Carbon	27K ohms 1/16W
R510	YF2116103JT	Carbon	10K ohms 1/16W
R511	YF21160R00T	Carbon	0 ohms 1/16W
R512	YF2116272JT	Carbon	2.7K ohms 1/16W
R513	YWR1220P183D	Metal	18K ohms
R514	YWR1220P243D	Metal	24K ohms
R515	YF2116333GT	Carbon	33K ohms 1/16W
R516	YF2116750JT	Carbon	75 ohms 1/16W
R517,518	YF2116332JT	Carbon	3.3K ohms 1/16W
R601	YF2116273GT	Carbon	27K ohms 1/16W
R602	YF2116103JT	Carbon	10K ohms 1/16W
R603	YF2116472GT	Carbon	4.7K ohms 1/16W
R604	YF2116562JT	Carbon	5.6K ohms 1/16W
R605	YF2116564JT	Carbon	560K ohms 1/16W
R606	YF2116272JT	Carbon	2.7K ohms 1/16W
R607	YF2116102GT	Carbon	1K ohms 1/16W
R608	YF2116272JT	Carbon	2.7K ohms 1/16W
R609	YF2116682JT	Carbon	6.8K ohms 1/16W
R610	YF2116222GT	Carbon	2.2K ohms 1/16W
R611	YF2116472GT	Carbon	4.7K ohms 1/16W
R612	YF2116222GT	Carbon	2.2K ohms 1/16W
R613	YF2116821GT	Carbon	820 ohms 1/16W
R614	YF2116472GT	Carbon	4.7K ohms 1/16W
R615	YF2116152JT	Carbon	1.5K ohms 1/16W
R616	YF2116512JT	Carbon	5.1K ohms 1/16W
R617	YF2116272JT	Carbon	2.7K ohms 1/16W
R618	YF2116103JT	Carbon	10K ohms 1/16W
R619	YF2116104JT	Carbon	100K ohms 1/16W
R620	YF2116102GT	Carbon	1K ohms 1/16W
R621	YF2116152JT	Carbon	1.5K ohms 1/16W
R622	YF21160R00T	Carbon	0 ohms 1/16W
R623	YF2116273GT	Carbon	27K ohms 1/16W
R624	YF2116103JT	Carbon	10K ohms 1/16W
R625	YF2116272JT	Carbon	2.7K ohms 1/16W
R626,627	YF2116332JT	Carbon	3.3K ohms 1/16W
R628	YF2116750JT	Carbon	75 ohms 1/16W
R629	YF2116152JT	Carbon	1.5K ohms 1/16W
R630	YF2116153JT	Carbon	15K ohms 1/16W
R631	YF21160R00T	Carbon	0 ohms 1/16W
R632	YF2116222GT	Carbon	2.2K ohms 1/16W
R633	YF2116100JT	Carbon	10 ohms 1/10W
R634,635	YF2116330JT	Carbon	33 ohms 1/16W
R636	YF2116223JT	Carbon	22K ohms 1/16W
R637	YF2116750JT	Carbon	75 ohms 1/16W
R638	YF21160R00T	Carbon	0 ohms 1/16W
R701	YF2116104JT	Carbon	100K ohms 1/16W
R702	YF2116103JT	Carbon	10K ohms 1/16W
R703	YF2116102GT	Carbon	1K ohms 1/16W
R704	YF2116103JT	Carbon	10K ohms 1/16W
R705	YF2116101JT	Carbon	100 ohms 1/10W
R706	YF2116104JT	Carbon	100K ohms 1/16W
R707	YF2116103JT	Carbon	10K ohms 1/16W
R708	YF2116102GT	Carbon	1K ohms 1/16W
R709	YF2116103JT	Carbon	10K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R710	YF2116101JT	Carbon	100 ohms 1/10W
R711	YF2116104JT	Carbon	100K ohms 1/16W
R712	YF2116103JT	Carbon	10K ohms 1/16W
R713	YF2116102GT	Carbon	1K ohms 1/16W
R714	YF2116103JT	Carbon	10K ohms 1/16W
R715	YF2116101JT	Carbon	100 ohms 1/10W
R801,802	YF2116331JT	Carbon	330 ohms 1/16W
R803	YF2116103JT	Carbon	10K ohms 1/16W
R804	YF2116391JT	Carbon	390 ohms 1/16W
R805	YF2116472GT	Carbon	4.7K ohms 1/16W
R806	YW2116242JT	Carbon	2.4K ohms 1/16W
R807	YF2116333GT	Carbon	33K ohms 1/16W
R808	ERG1SJ271	Metal	270 ohms 1W
R809	YF2116333GT	Carbon	33K ohms 1/16W
R810	YF2116393GT	Carbon	39K ohms 1/16W
R811	YF2116332JT	Carbon	3.3K ohms 1/16W
R812-814	YF2116102GT	Carbon	1K ohms 1/16W
R815,816	YF2116472GT	Carbon	4.7K ohms 1/16W
R817	ERDS2FJ101	Carbon	100 ohms 1/4W
R818	YF2116102GT	Carbon	1K ohms 1/16W
R819	YF2116101JT	Carbon	100 ohms 1/10W
R820	YF2116102GT	Carbon	1K ohms 1/16W
R821	YF2116104JT	Carbon	100K ohms 1/16W
R822	YF2116103JT	Carbon	10K ohms 1/16W
R823	YF2116273GT	Carbon	27K ohms 1/16W
R824	YF2116513JT	Carbon	51K ohms 1/16W
R826	ERDS2TJ300	Carbon	30 ohms 1/4W
R827	YF2116102GT	Carbon	1K ohms 1/16W
R901	YF2116114JT	Carbon	110K ohms 1/16W
R902	YF2116682JT	Carbon	6.8K ohms 1/16W
R903	YF2116152JT	Carbon	1.5K ohms 1/16W
R904	YF2116682JT	Carbon	6.8K ohms 1/16W
R905	YF2116332JT	Carbon	3.3K ohms 1/16W
R906	YF2116822JT	Carbon	8.2K ohms 1/16W
VR1	EVML3GA00B53	Variable Resistor	5KB ohms
VR2	EVML3GA00B52	Variable Resistor	500 ohms
VR201	EVML3GA00B53	Variable Resistor	5KB ohms
VR202	EVML3GA00B52	Variable Resistor	500 ohms
VR301	EVML3GA00B53	Variable Resistor	5KB ohms
VR302	EVML3GA00B52	Variable Resistor	500 ohms
VR401	EVML3GA00B53	Variable Resistor	5KB ohms
VR402	EVML3GA00B52	Variable Resistor	500 ohms
VR501	EVML3GA00B23	Variable Resistor	2K ohms
VR601	EVML3GA00B52	Variable Resistor	500 ohms
VR602	EVML3GA00B14	Variable Resistor	10K ohms
C1	YWRJ310V101M	Electrolytic	100 µF 10V
C2	YF400220CHJT	Ceramic	22 pF
C3	YWRJ310V470M	Electrolytic	47 µF 10V
C4	ECEA1AKN220	Electrolytic	22 µF 10V
C5	YWRJ416V101M	Electrolytic	100 µF
C6	YWRJ310V101M	Electrolytic	100 µF
C7	YWR2S50VR22M	Electrolytic	0.22 µF
C8	YW400102CHJT	Ceramic	1000 pF
C9	YF400104FZT	Ceramic	0.1 µF
C10	YF400104FZT	Ceramic	0.1 µF

REF.NO.	PART NO.	DESCRIPTION	
C11,12	YF400104FZT	Ceramic	0.1 µF
C13	YW400102CHJT	Ceramic	1000 pF
C14	YF400101CHJT	Ceramic	100 pF
C15	YF400104FZT	Ceramic	0.1 µF
C16	YF400680CHJT	Ceramic	68 pF CH
C17	YWRJ310V470M	Electrolytic	470µF 10V
C18	YWRJ416V101M	Electrolytic	100 µF 10V
C19	YF400102XKT	Ceramic	1000 pF
C20	YF400561CHJT	Ceramic	560 pF
C21	YF400102XKT	Ceramic	1000 pF
C22	YF400470CHJT	Ceramic	47 pF
C23	YW400431CHJT	Ceramic	430 pF
C24	YF400102XKT	Ceramic	1000 pF
C25	YF400241CHJT	Ceramic	240 pF
C26	YF400151CHJT	Ceramic	150 pF
C27	YF400102XKT	Ceramic	1000 pF
C28	YF400391CHJT	Ceramic	390 pF
C30	YF400102XKT	Ceramic	1000 pF
C31	YF400510CHJT	Ceramic	51 pF
C32	YF400201CHJT	Ceramic	200 pF
C33	YW400102CHJT	Ceramic	1000 pF
C34	YF400201CHJT	Ceramic	200 pF
C35	YF400121CHJT	Ceramic	120 pF
C37	YWRJ416V101M	Electrolytic	100 µF 16V
C38-40	YWR2S16V100M	Electrolytic	10 µF 16V
C41,42	YF400180CHJT	Ceramic	18 pF
C43	YF400222XKT	Ceramic	2200 pF
C45	YF400330CHJT	Ceramic	33 pF
C46	YF400430CHJT	Ceramic	43pF (CH)
C47	YF400220CHJT	Ceramic	22 pF
C48	YF400560CHJT	Ceramic	56 pF
C49	YWRJ36V101M	Electrolytic	100 µF 36V
C50	YF400104FZT	Ceramic	0.1 µF
C51	YF400120CHJT	Ceramic	12pF CH
C52	R3S16V4R7MR	Electrolytic	4.7 µF 16V
C53,54	YWR2S16V100M	Electrolytic	10 µF 16V
C56	YF400271CHJT	Ceramic	270 pF
C57	YF400224FZT	Ceramic	0.22 µF
C58	YF400270CHJT	Ceramic	27 pF (CH)
C60	YWRJ310V470M	Electrolytic	4.7 µF 10V
C61	YWRJ310V101M	Electrolytic	100 µF 10V
C62	YWRJ310V470M	Electrolytic	47 µF 10V
C63	ECEA0JKN220	Electrolytic	22 µF 6.3V
C64	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C65	YWR2S25V4R7M	Electrolytic	4.7 µF 25V
C67	ECEA0JKN220	Electrolytic	22 µF 6.3V
C68	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C69	YWR2S25V4R7M	Electrolytic	4.7 µF 25V
C71	YF400104FZT	Ceramic	0.1 µF
C72	YWRJ416V101M	Electrolytic	100 µF 16V
C73	YF400104FZT	Ceramic	0.1 µF
C74	YWRJ310V101M	Electrolytic	100 µF 16V
C75	ECSF1EE226	Electrolytic	22 µF 25V
C76	YF400301CHJT	Ceramic	300 pF
C77	YF400030CHDT	Ceramic	3 pF

REF.NO.	PART NO.	DESCRIPTION	
C201	YWRJ310V101M	Electrolytic	100 µF 10V
C202	YF400220CHJT	Ceramic	22 pF
C203	YWRJ310V470M	Electrolytic	47 µF 10V
C204	ECEA1AKN220	Electrolytic	22 µF 10V
C205	YF400102XKT	Ceramic	1000 pF
C206	YF400301CHJT	Ceramic	300 pF
C207	YF400470CHJT	Ceramic	47 pF
C208	YW400431CHJT	Ceramic	430 pF
C209	YF400102XKT	Ceramic	1000 pF
C210	YF400241CHJT	Ceramic	240 pF
C211	YF400151CHJT	Ceramic	150 pF
C212	YF400391CHJT	Ceramic	390 pF
C214	YF400102XKT	Ceramic	1000 pF
C215	YF400510CHJT	Ceramic	51 pF
C216,217	YF400201CHJT	Ceramic	200 pF
C218	YF400121CHJT	Ceramic	120 pF
C220	YWRJ310V101M	Electrolytic	100 µF 16V
C221	YWRJ416V101M	Electrolytic	100 µF 16V
C222	YWR2S16V100M	Electrolytic	10 µF 16V
C223,224	YF400180CHJT	Ceramic	18 pF
C225	YWR2S16V100M	Electrolytic	10 µF 16V
C227	YF400560CHJT	Ceramic	56 pF
C229	YWRJ36V101M	Electrolytic	100 µF 36V
C230	YF400104FZT	Ceramic	0.1 µF
C231	YF400120CHJT	Ceramic	12 pF CH
C232	R3S16V4R7MR	Electrolytic	4.7 µF 16V
C233,234	YWR2S16V100M	Electrolytic	10 µF 16V
C235	YF400224FZT	Ceramic	0.22 µF
C236	YF400270CHJT	Ceramic	27 pF (CH)
C238	YWRJ310V101M	Electrolytic	100 µF 10V
C239	YWRJ310V470M	Electrolytic	47 µF 10V
C240	ECEA0JKN220	Electrolytic	22 µF 6.3V
C241	YWR2S6V220M	Electrolytic	22 µF 6V
C242	YWRJ36V101M	Electrolytic	100 µF 6V
C243	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C244	YWRJ36V101M	Electrolytic	100 µF 6V
C245	YWRJ416V101M	Electrolytic	100 µF 16V
C246	YWR2S16V100M	Electrolytic	10 µF 16V
C247	YWRJ310V470M	Electrolytic	47 µF 10V
C248	YF400561CHJT	Ceramic	560 pF
C301	YWRJ310V101M	Electrolytic	100 µF 10V
C302	YF400220CHJT	Ceramic	22 pF
C303	YWRJ310V470M	Electrolytic	47 µF 10V
C304	ECEA1AKN220	Electrolytic	22 µF 10V
C305	YF400102XKT	Ceramic	1000 pF
C306	YF400301CHJT	Ceramic	300 pF
C307	YF400470CHJT	Ceramic	47 pF
C308	YW400431CHJT	Ceramic	430 pF
C309	YF400102XKT	Ceramic	1000 pF
C310	YF400241CHJT	Ceramic	240 pF
C311	YF400151CHJT	Ceramic	150 pF
C312	YF400391CHJT	Ceramic	390 pF
C314	YF400102XKT	Ceramic	1000 pF
C315	YF400510CHJT	Ceramic	51 pF
C316,317	YF400201CHJT	Ceramic	200 pF

REF.NO.	PART NO.	DESCRIPTION	
C318	YF400121CHJT	Ceramic	120 pF
C320	YWRJ310V101M	Electrolytic	100 µF 10V
C321	YWRJ416V101M	Electrolytic	100 µF 16V
C322	YWR2S16V100M	Electrolytic	10 µF 16V
C323,324	YF400180CHJT	Ceramic	18 pF
C325	YWR2S16V100M	Electrolytic	10 µF 16V
C327	YF400560CHJT	Ceramic	56 pF
C329	YWRJ36V101M	Electrolytic	100 µF 6.3V
C330	YF400104FZT	Ceramic	0.1 µF
C331	YF400120CHJT	Ceramic	12 pF CH
C332	R3S16V4R7MR	Electrolytic	4.7 µF 16V
C333,334	YWR2S16V100M	Electrolytic	10 µF 16V
C335	YF400224FZT	Ceramic	0.22 µF
C336	YF400270CHJT	Ceramic	27 pF (CH)
C338	YWRJ310V101M	Electrolytic	100 µF 10V
C339	YWRJ310V470M	Electrolytic	47 µF 10V
C340	ECEA0JKN220	Electrolytic	22 µF 6.3V
C341	YWR2S6V220M	Electrolytic	22 µF 6.3V
C342	YWRJ36V101M	Electrolytic	100 µF 6.3V
C343	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C344	YWRJ36V101M	Electrolytic	100 µF 6.3V
C345	YWRJ416V101M	Electrolytic	100 µF 16V
C346	YWR2S16V100M	Electrolytic	10 µF 16V
C347	YWRJ310V470M	Electrolytic	47 µF 10V
C348	YF400561CHJT	Ceramic	560 pF
C401	YWRJ310V101M	Electrolytic	100 µF 10V
C402	YF400220CHJT	Ceramic	22 pF
C403	YWRJ310V470M	Electrolytic	47 µF 10V
C404	ECEA1AKN220	Electrolytic	22 µF 10V
C405	YF400102XKT	Ceramic	1000 pF
C406	YF400301CHJT	Ceramic	300 pF
C407	YF400470CHJT	Ceramic	47 pF
C408	YW400431CHJT	Ceramic	430 pF
C409	YF400102XKT	Ceramic	1000 pF
C410	YF400241CHJT	Ceramic	240 pF
C411	YF400151CHJT	Ceramic	150 pF
C412	YF400391CHJT	Ceramic	390 pF
C414	YF400102XKT	Ceramic	1000 pF
C415	YF400510CHJT	Ceramic	51 pF
C416,417	YF400201CHJT	Ceramic	200 pF
C418	YF400121CHJT	Ceramic	120 pF
C420	YWRJ310V101M	Electrolytic	100 µF 10V
C421	YWRJ416V101M	Electrolytic	100 µF 16V
C422	YWR2S16V100M	Electrolytic	10 µF 16V
C423,424	YF400180CHJT	Ceramic	18 pF
C425	YWR2S16V100M	Electrolytic	100 µF 16V
C427	YF400560CHJT	Ceramic	56 pF
C429	YWRJ36V101M	Electrolytic	100 µF 6.3V
C430	YF400104FZT	Ceramic	0.1 µF
C431	YF400120CHJT	Ceramic	12 pF CH
C432	R3S16V4R7MR	Electrolytic	4.7 µF 16V
C433,434	YWR2S16V100M	Electrolytic	10 µF 16V
C435	YF400224FZT	Ceramic	0.22 µF
C436	YF400270CHJT	Ceramic	27 pF (CH)
C438	YWRJ310V101M	Electrolytic	100 µF 10V

REF.NO.	PART NO.	DESCRIPTION	
C439	YWRJ310V470M	Electrolytic	47 µF 10V
C440	ECEA0JKN220	Electrolytic	22 µF 6.3V
C441	YF400104FZT	Ceramic	0.1 µF
C442	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C443	YWR2S25V4R7M	Electrolytic	4.7 µF 25V
C445	YWRJ36V101M	Electrolytic	100 µF 6.3V
C446	YWRJ416V101M	Electrolytic	100 µF 16V
C447	YF400104FZT	Ceramic	0.1 µF
C448	YWR2S16V100M	Electrolytic	10 µF 16V
C449	YWRJ310V470M	Electrolytic	47 µF10V
C450	YF400561CHJT	Ceramic	560 pF
C501	YWRJ310V470M	Electrolytic	47 µF10V
C502	YF400220CHJT	Ceramic	22 pF
C503	YF400150CHJT	Ceramic	15 pF
C504	YF400270CHJT	Ceramic	27 pF (CH)
C505	YWRJ36V101M	Electrolytic	100 µF 6.3V
C506	YWR2S10V220M	Electrolytic	22 µF 10V
C507	YF400104FZT	Ceramic	0.1 µF
C508	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C509	YWR2S25V4R7M	Electrolytic	4.7 µF 25V
C511	YWRJ416V101M	Electrolytic	100 µF 10V
C512	YF400150CHJT	Ceramic	15 pF
C601	YWRJ310V470M	Electrolytic	47 µF10V
C602	YF400104FZT	Ceramic	0.1 µF
C603	YF400104FZT	Ceramic	0.1 µF
C604	YF400151CHJT	Ceramic	150 pF
C605	YF400104FZT	Ceramic	0.1 µF
C606	YF400390CHJT	Ceramic	39 pF
C607	YWR2S16V100M	Electrolytic	10 µF 16V
C608	YF400104FZT	Ceramic	0.1 µF
C609	YF400560CHJT	Ceramic	56 pF
C610	YWRJ416V101M	Electrolytic	100 µF 16V
C611	YWRJ310V101M	Electrolytic	100 µF 10V
C612	YWR2S10V220M	Electrolytic	22 µF 10V
C613	ECEB0JGE332	Electrolytic	3300 µF 6.3V
C614	YWR2S25V4R7M	Electrolytic	4.7 µF 25V
C616	YWRJ416V101M	Electrolytic	100 µF 10V
C617	YF400270CHJT	Ceramic	27 pF
C618	ECEB1CGE222	Electrolytic	2200 µF 16V
C619	YWRJ416V101M	Electrolytic	100 µF 10V
C620-622	YF400104FZT	Ceramic	0.1 µF
C623	YWR2S16V100M	Electrolytic	10 µF 16V
C624	YF400150CHJT	Ceramic	15 pF
C701	YWRJ416V101M	Electrolytic	100 µF 10V
C702-706	YF400104FZT	Ceramic	0.1 µF
C801,802	YWRJ416V101M	Electrolytic	100 µF 10V
C803,804	ECEA1CKN100	Electrolytic	16 µF 16V
C805	YF400472XKT	Ceramic	47 pF
C806	ECEA1CKN100	Electrolytic	16 µF 16V
C807	YWRJ416V101M	Electrolytic	100 µF 10V
C808,809	ECEA1CKN100	Electrolytic	16 µF 16V

REF.NO.	PART NO.	DESCRIPTION	
C810	ECEA1HKN010	Electrolytic	1 µF 50V
C811	YWR2S50VR10M	Electrolytic	0.1 µF 50V
C812	YF400103XKT	Ceramic	0.1 µF
C813	ECEA1CGE471	Electrolytic	470 µF 16V
C814	YF400103XKT	Ceramic	0.1 µF
C815	YWRJ325V470M	Electrolytic	47 µF 25V
C816	ECEA1CKN100	Electrolytic	16 µF 16V
C817	ECEA1CGE471	Electrolytic	470 µF 16V
C618	YWRJ310V101M	Electrolytic	100 µF 10V
C819	ECEA1CKN100	Electrolytic	16 µF 16V
C901,902	YF400224FZT	Ceramic	0.22 µF
C903	YF400100CHDT	Ceramic	10 pF
L1	YFEL05SI4R7K	Coil	4.7 µH
L2	YWNL32470K	Coil	47 µH
L3	YWNL32T2R7K	Coil	2.7 µH
L4	YWNL32470K	Coil	47 µH
L201	YFEL05SI4R7K	Coil	4.7 µH
L202	YWNL32470K	Coil	47 µH
L203	YWNL32T2R7K	Coil	2.7 µH
L301	YFEL05SI4R7K	Coil	4.7 µH
L302	YWNL32470K	Coil	47 µH
L303	YWNL32T2R7K	Coil	2.7 µH
L401	YFEL05SI4R7K	Coil	4.7 µH
L402	YWNL32470K	Coil	47 µH
L403	YWNL32T2R7K	Coil	2.7 µH
L501	YFEL05SI4R7K	Coil	4.7 µH
L502	YWNL32470K	Coil	47 µH
L601	YFEL05SI4R7K	Coil	4.7 µH
L602	YWNL328R2KK	Coil	8.2 µH
SW1	YWSSS21200	Slide Switch	
CN1	FCN215Q050GA	5-pin Connector	

POWER BOARD

PCB2 (NLA)	YWVKZRCU7P2A	Printed Circuit Board Assy
IC1,2	YWTL1451CNS	IC
IC4	AN78N05	IC
IC5	NJM2902M	IC
IC6	NJM2903M	IC
IC7	MN74HC221S	IC
IC8	NJM78L05A	IC
IC201	YWNJM7824A	IC
IC202	NJM2903M	IC
IC203	NJM555M	IC
IC204	YWTC4S71F	IC
IC205	MN4042BS	IC
IC206	NJM592M8	IC
IC208	YWTC4S69F	IC
IC209	MN4538BS	IC
IC210	NJM2903M	IC
IC211	YWTC4S71F	IC
IC212	YWTC4S81FR	IC
IC213	TL062CPS	IC
IC401	MN4050BS	IC

REF.NO.	PART NO.	DESCRIPTION	
IC402	MN4053BS	IC	
IC403	NJM4556M	IC	
IC404	NJM2903M	IC	
IC501	MN74HC74S	IC	
Q1-7	2SD601A-QR	Transistor	
Q9	2SD601A-QR	Transistor	
Q10	2SB709A-S	Transistor	
Q11,12	2SD601A-QR	Transistor	
Q13,14	2SJ132	FET	
Q15	2SD601A-QR	Transistor	
Q16	2SB709A-S	Transistor	
Q17,18	2SJ132	FET	
Q19,20	2SB709A-S	Transistor	
Q21	2SB819	Transistor	
Q22,23	2SD601A-QR	Transistor	
Q24	2SB709A-S	Transistor	
Q26	2SJ132	FET	
Q27	2SD601A-QR	Transistor	
Q28	2SB819	Transistor	
Q29	2SD601A-QR	Transistor	
Q30	2SB709A-S	Transistor	
Q31	2SD973-QRS	Transistor	
Q32	2SB709-RS	Transistor	
Q201	2SB792A-RS	Transistor	
Q202	2SD814-QRS	Transistor	
Q204	2SJ122	Transistor	
Q205,206	2SD814-QRS	Transistor	
Q207	2SB709A-S	Transistor	
Q208-212	2SD601A-QR	Transistor	
Q213	2SB709A-S	Transistor	
Q214,215	2SD601A-QR	Transistor	
Q216	NTM3906-T2B	Transistor	
Q217	YWNTM3904	Transistor	
Q218	2SD814-QRS	Transistor	
Q219	2SD601A-QR	Transistor	
Q220	2SB793-RS	Transistor	
Q221	2SD601A-QR	Transistor	
Q222	2SA1111-QR	Transistor	
Q223	2SD1328-RS	Transistor	
Q224,225	2SD814-QRS	Transistor	
Q401	2SD601-RS	Transistor	
Q402	2SB709-RS	Transistor	
Q501,502	2SD601-RS	Transistor	
Q503,504	2SD601A-QR	Transistor	
Q505	2SD601-RS	Transistor	
D1	MA151K	Diode	
D2	LN21RPH	LED	Red
D3	MA151K	Diode	
D4-7	YWERA81004	Diode	
D10	YWERA81004	Diode	
D11	MA1130-M	Diode	
D12	MA1062-L	Diode	
D201	MA1100-H	Diode	
D202-204	MA151K	Diode	

REF.NO.	PART NO.	DESCRIPTION	
D205	V03G	Diode	
D206	MA151K	Diode	
D207,208	V03G	Diode	
D209,210	MA151K	Diode	
D212-214	1SS97-2	Diode	
D215	MA151K	Diode	
D216-218	YWRD10FB	Diode	
D219	V03G	Diode	
D220-224	MA151K	Diode	
D225	MA182	Diode	
D226	YFRD22EB2	Diode	
D227	MA1051-M	Diode	
D228	MA1056H	Diode	
D401,501	MA151K	Diode	
R1	YF2116393GT	Carbon	39K ohms 1/16W
R2	YF2116912GT	Carbon	9.1K ohms 1/16W
R3	YF2116393GT	Carbon	39K ohms 1/16W
R4	YF2116123JT	Carbon	12K ohms 1/16W
R5-9	YF2116393GT	Carbon	39K ohms 1/16W
R11	YF21160R00T	Carbon	0 ohms 1/10W
R13	YF2116393GT	Carbon	39K ohms 1/16W
R15	YF2116562JT	Carbon	5.6K ohms 1/16W
R16	YF2116104JT	Carbon	100K ohms 1/16W
R17	YF2116393GT	Carbon	39K ohms 1/16W
R19	R1220P432D	Metal	4.3K ohms
R20	YF2116103JT	Carbon	10K ohms 1/16W
R21	YF2116101JT	Carbon	100 ohms 1/10W
R22	YF2116103JT	Carbon	10K ohms 1/16W
R23	YWR1220P753D	Metal	75K ohms
R24	YF2116272JT	Carbon	2.7K ohms 1/16W
R25	YF2116392JT	Carbon	3.9K ohms 1/16W
R26	YF2116562JT	Carbon	5.6K ohms 1/16W
R27	YF2116303GT	Carbon	30K ohms 1/16W
R28	YWR1220P753D	Metal	75K ohms
R29	YWR1220P562D	Metal	5.6K ohms
R31	YFR1220P104D	Metal	100K ohms
R32	YF2116823JT	Carbon	82K ohms 1/16W
R33	YF2116101JT	Carbon	100 ohms 1/10W
R35	YF2116104JT	Carbon	100K ohms 1/16W
R36	YWR1220P154D	Metal	150K ohms
R37	YF2116100JT	Carbon	10 ohms 1/10W
R38	YF2116682JT	Carbon	6.8K ohms 1/16W
R39	YF2116512JT	Carbon	5.1K ohms 1/16W
R40	YF2116392JT	Carbon	3.9K ohms 1/16W
R41	YF2116106JT	Carbon	10M ohms 1/16W
R42	YF2116100JT	Carbon	10 ohms 1/10W
R43	YWR1220P243D	Metal	24K ohms
R44,45	YF2116103JT	Carbon	10K ohms 1/16W
R46	YF2116272JT	Carbon	2.7K ohms 1/16W
R47	YF2116100JT	Carbon	10 ohms 1/10W
R48	YF21160R00T	Carbon	0 ohms 1/10W
R49,50	YF2116103JT	Carbon	10K ohms 1/16W
R51	YF2116682JT	Carbon	6.8K ohms 1/16W
R52	YWR1220P302D	Metal	3K ohms
R53	YF21160R00T	Carbon	0 ohms 1/10W

REF.NO.	PART NO.	DESCRIPTION	
R54	YF2116100JT	Carbon	10 ohms 1/10W
R55	YWR1220P333D	Metal	33K ohms
R56	YWR1220P471D	Metal	470 ohms
R57	YF2116102GT	Carbon	1K ohms 1/16W
R58,59	YF2116103JT	Carbon	10K ohms 1/16W
R60	YF21160R00T	Carbon	0 ohms 1/10W
R61	YFR1220P392D	Metal	3.9K ohms
R62	YF2116102GT	Carbon	1K ohms 1/16W
R65	YWR1220P153D	Metal	15K ohms
R66	YWR1220P202D	Metal	2K ohms
R67	YFR1220P203D	Metal	20K ohms
R69	YWR1220P272D	Metal	2.7K ohms
R70	YF2116100JT	Carbon	10 ohms 1/10W
R73	YWR1220P182D	Metal	1.8K ohms
R74	YF2116102GT	Carbon	1K ohms 1/16W
R75	YF2116392JT	Carbon	3.9K ohms 1/16W
R76	YFR1220P562D	Metal	5.6K ohms
R77	YWR1220P124D	Metal	120K ohms
R78	YF2116224JT	Carbon	220K ohms 1/16W
R79-82	YF2116103JT	Carbon	10K ohms 1/16W
R83	YWR1220P183D	Metal	18K ohms
R84	YWR1220P103D	Metal	10K ohms
R85	YWR1220P101D	Metal	100 ohms
R86,87	YF2116102GT	Carbon	1K ohms 1/16W
R88	YF2116101JT	Carbon	100 ohms 1/16W
R89	YWR1220P163D	Metal	16K ohms
R90	YWR1220P391D	Metal	390 ohms
R91	YWR1220P912D	Metal	9.2K ohms
R92	YF21160R00T	Carbon	0 ohms 1/16W
R94	YF2116102GT	Carbon	1K ohms 1/16W
R95	YF2116113JT	Carbon	11K ohms 1/16W
R96	YF2116473GT	Carbon	47K ohms 1/16W
R98	ERSB30G272	Metal	2.7K ohms 3W
R201	ERD50FJ473	Metal	47K ohms 1/2W
R202	YF2116223JT	Carbon	22K ohms 1/16W
R203	YF2116104JT	Carbon	100K ohms 1/16W
R204	ERF5AK1R0	Wire Wound	1 ohms 5W
R205	YF2116152JT	Carbon	1.5K ohms 1/16W
R206	YF2116332JT	Carbon	3.3K ohms 1/16W
R208	ERD50FJ223	Carbon	22K ohms 1/2W
R210	ERD50FJ473	Carbon	47K ohms 1/2W
R211	YF2116223JT	Carbon	22K ohms 1/16W
R212	YF2116104JT	Carbon	100K ohms 1/16W
R213	ERD50FJ271	Carbon	270 ohms 1/2W
R214	ERD50FJ301	Carbon	300 ohms 1/2W
R216	YF2116103JT	Carbon	10K ohms 1/16W
R217	ERF3TJ681	Wire Wond	680 ohms 3W
R219	YF2116473GT	Carbon	47K ohms 1/16W
R220	YF2116103JT	Carbon	10K ohms 1/16W
R221	YF2116223JT	Carbon	22K ohms 1/16W
R222	YF2116473GT	Carbon	47K ohms 1/16W
R223	YF2116103JT	Carbon	10K ohms 1/16W
R224	YF2116473GT	Carbon	47K ohms 1/16W
R225	YF2116223JT	Carbon	22K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R226,227	YF2116153JT	Carbon	15K ohms 1/16W
R228	YF2116104JT	Carbon	100K ohms 1/16W
R229	YF2116103JT	Carbon	10K ohms 1/16W
R230	YF2116333GT	Carbon	33K ohms 1/16W
R231	ERF2TK2R2	Metal	2.2 ohms 2W
R232	YF2116223JT	Carbon	22K ohms 1/16W
R233	YF2116104JT	Carbon	100K ohms 1/16W
R234	YF2116303GT	Carbon	30K ohms 1/16W
R235	YF2116104JT	Carbon	100K ohms 1/16W
R236	ERG1CJ102	Metal	1K ohms 1W
R237	YF2116223JT	Carbon	22K ohms 1/16W
R238	YF2116103JT	Carbon	10K ohms 1/16W
R239	YF2116473GT	Carbon	47K ohms 1/16W
R240	YF2116102GT	Carbon	1K ohms 1/16W
R241,242	YF2116103JT	Carbon	10K ohms 1/16W
R243	YF2116474JT	Carbon	470K ohms 1/16W
R244	YF2116334JT	Carbon	330K ohms 1/16W
R245	YF2116333GT	Carbon	33K ohms 1/16W
R246,247	YF2116102GT	Carbon	1K ohms 1/16W
R248,249	YF2116153JT	Carbon	15K ohms 1/16W
R250	YF2116104JT	Carbon	100K ohms 1/16W
R251	YF2116103JT	Carbon	10K ohms 1/16W
R252	YF2116473GT	Carbon	47K ohms 1/16W
R253	YF2116104JT	Carbon	100K ohms 1/16W
R254	YF2116102GT	Carbon	1K ohms 1/16W
R255,256	2116150JT	Carbon	15 ohms 1/16W
R257	YF2116562JT	Carbon	5.6K ohms 1/16W
R258	YF2116823JT	Carbon	82K ohms 1/16W
R259	YF2116683GT	Carbon	68K ohms 1/16W
R260	YF2116472GT	Carbon	4.7K ohms 1/16W
R261	YF2116102GT	Carbon	1K ohms 1/16W
R262,263	YF2116223JT	Carbon	22K ohms 1/16W
R264,265	YF2116102GT	Carbon	1K ohms 1/16W
R266	ERG3CJ332	Metal	3.3K ohms 3W
R268,269	YF2116223JT	Carbon	22K ohms 1/16W
R270	YF2116222GT	Carbon	2.2K ohms 1/16W
R271,272	YF2116103JT	Carbon	10K ohms 1/16W
R273	YF2116102GT	Carbon	1K ohms 1/16W
R274,275	YF2116103JT	Carbon	10K ohms 1/16W
R276	YF2116562JT	Carbon	5.6K ohms 1/16W
R277	YF2116103JT	Carbon	10K ohms 1/16W
R278	YF2116223JT	Carbon	22K ohms 1/16W
R279	YF2116391JT	Carbon	390 ohms 1/16W
R280	YF2116223JT	Carbon	22K ohms 1/16W
R281	YF2116683GT	Carbon	68K ohms 1/16W
R282	YF2116133GT	Carbon	13K ohms 1/16W
R283	YF2116223JT	Carbon	22K ohms 1/16W
R284	YW2116105JT	Carbon	1M ohms 1/16W
R285	YF2116334JT	Carbon	330K ohms 1/16W
R286	YF2116223JT	Carbon	22K ohms 1/16W
R287	YF2116103JT	Carbon	10K ohms 1/16W
R288	YF2116683GT	Carbon	68K ohms 1/16W
R289	YF2116563JT	Carbon	56K ohms 1/16W
R290	ERDS2TJ394	Carbon	390K ohms 1/4W
R291	YF2116101JT	Carbon	100 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R292	YF2116271JT	Carbon	270 ohms 1/16W
R293	R1220P913D	Metal	91K ohms
R294	YF2116912GT	Carbon	9.1K ohms 1/16W
R295	ERDS2TJ473	Carbon	47K ohms
R296	YF2116302GT	Carbon	3K ohms 1/16W
R297	ERDS2TJ432	Carbon	4.3K ohms 1/4W
R298	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R299	YW2116105JT	Carbon	1M ohms 1/16W
R300	YF2116181JT	Carbon	180 ohms 1/16W
R301	YF2116333GT	Carbon	33K ohms 1/16W
R302-304	ERF3TJ681	Wire Wound	680 ohms
R401	YF2116103JT	Carbon	10K ohms 1/16W
R402	YF2116472GT	Carbon	4.7K ohms 1/16W
R403,404	YFR1220P222D	Metal	2.2K ohms
R405	YF21160R00T	Carbon	0 ohms 1/10W
R406	YF2116510JT	Carbon	51 ohms 1/16W
R407	YF2116103JT	Carbon	10K ohms 1/16W
R408	YF2116123JT	Carbon	12K ohms 1/16W
R409	YF2116273GT	Carbon	27K ohms 1/16W
R410	YF2116101JT	Carbon	100 ohms 1/10W
R411	YF2116102GT	Carbon	1K ohms 1/16W
R412-414	YF21160R00T	Carbon	0 ohms 1/10W
R415	YF2116101JT	Carbon	100 ohms 1/10W
R501	YF2116102GT	Carbon	1K ohms 1/16W
R502	YF2116473GT	Carbon	47K ohms 1/16W
R503	YF2116103JT	Carbon	10K ohms 1/16W
R505	YF2116102GT	Carbon	1K ohms 1/16W
R506	YF2116473GT	Carbon	47K ohms 1/16W
R507	YF21160R00T	Carbon	0 ohms 1/10W
R508-511	YF2116103JT	Carbon	10K ohms 1/16W
R512,513	YF2116473GT	Carbon	47K ohms 1/16W
R514	YF2116103JT	Carbon	10K ohms 1/16W
R517	YF21160R00T	Carbon	0 ohms 1/10W
R518	YF2116103JT	Carbon	10K ohms 1/16W
VR1	YWH0621A470	Variable Resistor	47 ohms
VR2	YWH0621A22K	Variable Resistor	22K ohms
VR201	YWH0621A1K	Variable Resistor	1K ohms
VR202	EVMH1GA00B24	Variable Resistor	20K ohms
C1	YF400103XKT	Ceramic	0.01 µF
C2	YF400683XKT	Ceramic	0.068 µF
C3	ECSF1HE334	Tantalum	0.33 µF 50V
C4	YF400103XKT	Ceramic	0.01 µF
C5	YF400104FZT	Ceramic	0.1 µF
C6,7	YF400683XKT	Ceramic	0.068 µF
C8	YF400103XKT	Ceramic	0.01 µF
C9	YF400104FZT	Ceramic	0.1 µF
C10	YF400681CHJT	Ceramic	680 µF 50V
C11	YF400200CHJT	Ceramic	20 pF
C12	YF400683XKT	Ceramic	0.068 µF
C14	YF400270CHJT	Ceramic	27 pF
C16,17	YF400103XKT	Ceramic	0.01 µF
C19	YWR2S35V100M	Electrolytic	10 µF 35V

REF.NO.	PART NO.	DESCRIPTION	
C20,21	ECEB1VGE102	Electrolytic	1000 µF 35V
C22	ECA1VFQ221	Electrolytic	220 µF 35V
C23	YWR2S50VR47M	Electrolytic	0.47 µF 50V
C24,25	ECA1CFZ221	Electrolytic	220 µF 16V
C26	YWR2S50VR47M	Electrolytic	0.47 µF 50V
C27	ECA1CFZ221	Electrolytic	220 µF 16V
C28	ECA1CFQ271	Electrolytic	270 µF 16V
C29	ECA1CFZ221	Electrolytic	220 µF 16V
C30	YWR2S50VR47M	Electrolytic	0.47 µF 50V
C31	ECA0JFQ331	Electrolytic	330 µF 6.3V
C32	ECA0JFZ331	Electrolytic	330 µF 6.3V
C33	ECA1AFQ221	Electrolytic	220 µF 10V
C34	ECA0JFZ331	Electrolytic	330 µF 6.3V
C35	YF400104FZT	Ceramic	0.1 µF
C36	ECSF1HE334	Tantalum	0.33 µF 50V
C39	YF400103XKT	Ceramic	0.01 µF
C40	ECA0JFQ331	Electrolytic	330 µF 6.3V
C41,42	YF400102XKT	Ceramic	1000 pF
C43	YF400104FZT	Ceramic	0.1 µF
C44	ECA0JFQ331	Electrolytic	330 µF 6.3V
C45,46	YF400104FZT	Ceramic	0.1 µF
C50	YWR2S50VR22M	Electrolytic	0.22 µF 50V
C51	ECEA1VU330	Electrolytic	33 µF 35V
C202	ECEA1HU470	Electrolytic	47 µF 50V
C204,205	YWRE2120V471	Electrolytic	470 µF 120V
C206	ECEA2CU220	Electrolytic	22 µF 160V
C207	ECEA1HU470	Electrolytic	47 µF 50V
C208	YF400104FZT	Ceramic	0.1 µF
C209	ECA0JFQ331	Electrolytic	330 µF6.3V
C210	ECEA1HU470	Electrolytic	47 µF 50V
C211	YWR2S50V1R0M	Electrolytic	1 µF 50V
C212	ECQB1H102JZ	Plastic	1000 pF 50V
C213	ECQM2104KZ	Plastic	0.1 µF 200V
C214	YWR2S50V1R0M	Electrolytic	1 µF 50V
C215	YF400103XKT	Ceramic	0.01 µF
C216	ECSF1EE225	Tantalum	2.2 µF 25V
C217	ECSF1EE685	Tantalum	6.8 µF 25V
C218	ECEA1AKA101	Electrolytic	100 µF 10V
C219	YF400224FZT	Ceramic	0.22 µF
C220	ECSF1AE336	Tantalum	33 µF 10V
C221,222	YF400102XKT	Ceramic	1000 pF
C223	ECEA1AKA101	Electrolytic	100 µF 10V
C224,225	YF400104FZT	Ceramic	0.1 µF
C226	YW400090CHDT	Ceramic	9 pF
C227	YF400080CHDT	Ceramic	8 pF
C228-230	YF400101CHJT	Ceramic	100 pF
C233	YF400104FZT	Ceramic	0.1 µF
C234	YWR2S50V1R0M	Electrolytic	1 µF 50V
C235	ECSF1VE105	Tantalum	1 µF 35V
C237,239	YF400104FZT	Ceramic	0.1 µF
C238	YF400223XKT	Ceramic	0.022 µF
C401	R2S6R3V101M	Electrolytic	100 µF6.3V
C402-405	YF400104FZT	Ceramic	0.1 µF
C406	ECEA1CKN220	ElectrolytIC	22 µF 16V
C407	ECEA1AKN470	ElectrolytIC	47 µF 10V

REF.NO.	PART NO.	DESCRIPTION	
C501	YF400681CHJT	CeramIC	680 µF 50V
C502	YF400104FZT	CeramIC	0.1 µF
C503	YWR2S16V100M	ElectrolytIC	10 µF 16V
C504	R2S6R3V101M	ElectrolytIC	100 µF6.3V
C505,506	YF400224FZT	CeramIC	0.22 µF
L1	YWS100458470	Coil	
L2	YWS100522470	Coil	
L3	YWS100458151	Coil	
L4	YWS100522470	Coil	
L5	YWS100458221	Coil	
L6,7	YWS100522470	Coil	
L8	YWS100522391	Coil	
L201,202	ELC18E001	Coil	
L203	EIL7EN004Q	Coil	
L204	EIL7EN005Q	Coil	
L205	EIL7EN004Q	Coil	
L401,501	EL05SI330K	Coil	33 µH
CN1	FCN215Q050GA	Connector	
E110	WMT4X1R2X5	Insulator	
TP1	YW32BM12R5	Test-pin	
TP2-5	YW32BM12R5	Test-pin	
TP6-9	YW32BM12R5	Test-pin	
TP201-204	YW32BM12R5	Test-pin	
TP208-212	YW32BM12R5	Test-pin	
TP501,502	YW32BM12R5	Test-pin	
M19	YWV2HA0993A3	Shield Cover	
M30	YWV7DA0193A4	Heat Sink	
M40	YWCBE-14	Holder	

DEMODULATOR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB3 (NLA)	YWVKZRCU7E3A	Printed Circuit Board Assy
IC1	YWTC4S66FR	IC
IC2	YWTC4S69F	IC
IC3	MN4011BS	IC
IC4	NJM592M8	IC
IC5	NJM2903M	IC
IC6	MN4050BS	IC
IC7	YWTC4S66FR	IC
IC8	MN74HC221S	IC
IC9	MN4538BS	IC
IC10	MN74HC221S	IC
IC11	MN74HC08S	IC
IC12	TL092CPS	IC
IC13	NJM4556M	IC
IC14	MN4053BS	IC
Q1-4	2SD601-RS	Transistor
Q5	2SC2404-CD	Transistor
Q6	2SD601-RS	Transistor
Q7	2SK198-P	Transistor
Q8	2SA1022-C	Transistor

REF.NO.	PART NO.	DESCRIPTION	
Q9	2SD601-RS	Transistor	
Q10,11	2SC2404-CD	Transistor	
Q12	2SK198-P	Transistor	
Q13-15	2SC2404-CD	Transistor	
Q16,17	2SA1022-C	Transistor	
Q18,19	2SD601-RS	Transistor	
Q20	2SA1022-C	Transistor	
Q21,22	2SD601-RS	Transistor	
Q23	2SC3757-Q	Transistor	
Q24,25	2SD601-RS	Transistor	
Q26	2SK198-P	Transistor	
Q27,28	2SC3757-Q	Transistor	
Q29	2SC2405-STU	Transistor	
Q30,31	2SD601-RS	Transistor	
D1	MA151K	Diode	
D2	MA165	Diode	
D3,4	MA151K	Diode	
D5	MA182	Diode	
R1	YF2116822JT	Carbon	8.2K ohms 1/16W
R2	YF2116563JT	Carbon	56K ohms 1/16W
R3	YF2116332JT	Carbon	3.3K ohms 1/16W
R4	YF2116510JT	Carbon	51 ohms 1/16W
R5	YF2116102GT	Carbon	1K ohms 1/16W
R6	YF2116510JT	Carbon	51 ohms 1/16W
R7	YF2116332JT	Carbon	3.3K ohms 1/16W
R8,9	YF2116102GT	Carbon	1K ohms 1/16W
R10	YF2116331JT	Carbon	330 ohms 1/16W
R11	YW2116182JT	Carbon	1.8K ohms 1/16W
R13	YF2116331JT	Carbon	330 ohms 1/16W
R16	YF2116222GT	Carbon	2.2K ohms 1/16W
R17	YF2116221JT	Carbon	220 ohms 1/16W
R18	YF2116152JT	Carbon	1.5K ohms 1/16W
R19	YF2116202JT	Carbon	2K ohms 1/16W
R20	YF2116222GT	Carbon	2.2K ohms 1/16W
R21	YF2116112JT	Carbon	1.1K ohms 1/16W
R22	YF2116101JT	Carbon	100 ohms 1/10W
R23	YF2116821GT	Carbon	820 ohms 1/16W
R24	YF2116393GT	Carbon	39K ohms 1/16W
R26	YF2116822JT	Carbon	8.2K ohms 1/16W
R27	YF2116333GT	Carbon	33K ohms 1/16W
R28	YF2116562JT	Carbon	5.6K ohms 1/16W
R29	YF2116274JT	Carbon	270K ohms 1/16W
R30	YF2116332JT	Carbon	3.3K ohms 1/16W
R31	YF2116471JT	Carbon	470 ohms 1/16W
R32	YF2116202JT	Carbon	2K ohms 1/16W
R33	YF2116302GT	Carbon	3K ohms 1/16W
R34,35	YF2116683GT	Carbon	68K ohms 1/16W
R36,37	YF2116102GT	Carbon	1K ohms 1/16W
R38	YF2116101JT	Carbon	100 ohms 1/10W
R39	YF2116102GT	Carbon	1K ohms 1/16W
R40	YF2116333GT	Carbon	33K ohms 1/16W
R41	YF2116473GT	Carbon	47K ohms 1/16W
R42	YF2116102GT	Carbon	1K ohms 1/16W
R43	YF2116123JT	Carbon	12K ohms 1/16W
R44	YF2116560JT	Carbon	56 ohms 1/16W
R45	YF2116153JT	Carbon	15K ohms 1/16W
R46,47	YF2116470JT	Carbon	47 ohms 1/16W
R48	YF2116472GT	Carbon	4.7K ohms 1/16W
R49	YF2116223JT	Carbon	22K ohms 1/16W
R50,51	YF2116183GT	Carbon	18K ohms 1/16W
R52	YF2116472GT	Carbon	4.7K ohms 1/16W
R53	YF2116333GT	Carbon	33K ohms 1/16W
R54	YF2116331JT	Carbon	330 ohms 1/16W
R55	YF2116683GT	Carbon	68K ohms 1/16W
R56	YF2116102GT	Carbon	1K ohms 1/16W
R57	YF2116683GT	Carbon	68K ohms 1/16W
R58	YF2116102GT	Carbon	1K ohms 1/16W
R59	YF2116511JT	Carbon	510 ohms 1/16W
R60-62	YF2116101JT	Carbon	100 ohms 1/10W
R63	YF2116103JT	Carbon	10K ohms 1/16W
R64	YF2116331JT	Carbon	330 ohms 1/16W
R65	YF2116103JT	Carbon	10K ohms 1/16W
R66	YF2116332JT	Carbon	3.3K ohms 1/16W
R67	YF2116682JT	Carbon	6.8K ohms 1/16W
R68	YF2116752JT	Carbon	7.5K ohms 1/16W
R69	YF2116473GT	Carbon	47K ohms 1/16W
R70,71	YF2116332JT	Carbon	3.3K ohms 1/16W
R72,73	YF2116331JT	Carbon	330 ohms 1/16W
R74	YF2116822JT	Carbon	8.2K ohms 1/16W
R75	YF2116202JT	Carbon	2K ohms 1/16W
R76	YF2116101JT	Carbon	100 ohms 1/10W
R77	YF2116102GT	Carbon	1K ohms 1/16W
R78	YF2116472GT	Carbon	4.7K ohms 1/16W
R79	YF2116272JT	Carbon	2.7K ohms 1/16W
R80	YF2116102GT	Carbon	1K ohms 1/16W
R81	YF2116332JT	Carbon	3.3K ohms 1/16W
R82	YF2116103JT	Carbon	10K ohms 1/16W
R83,84	YF2116272JT	Carbon	2.7K ohms 1/16W
R85	YF2116394JT	Carbon	390K ohms 1/16W
R86	YF2116272JT	Carbon	2.7K ohms 1/16W
R87	YF2116112JT	Carbon	1.1K ohms 1/16W
R88,89	YF2116472GT	Carbon	4.7K ohms 1/16W
R90	YF2116332JT	Carbon	3.3K ohms 1/16W
R91	YF2116682JT	Carbon	6.8K ohms 1/16W
R92	YF2116103JT	Carbon	10K ohms 1/16W
R93	YWR1220P154D	Metal	150K ohms
R94	YF2116183GT	Carbon	18K ohms 1/16W
R95	YWR1220P224D	Metal	220K ohms
R96	YFR1220P104D	Metal	100K ohms
R97	YF2116514GT	Carbon	510K ohms 1/16W
R98	YF2116103JT	Carbon	10K ohms 1/16W
R99	YF2116272JT	Carbon	2.7K ohms 1/16W
R100	YF2116563JT	Carbon	56K ohms 1/16W
R102	YF2116162JT	Carbon	1.6K ohms 1/16W
R103,104	YF2116102GT	Carbon	1K ohms 1/16W
R105	YF2116332JT	Carbon	3.3K ohms 1/16W
R106	YF2116102GT	Carbon	1K ohms 1/16W
R107	YF2116153JT	Carbon	15K ohms 1/16W
R108	YF2116183GT	Carbon	18K ohms 1/16W
R109	YF2116102GT	Carbon	1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R110	YF2116202JT	Carbon	2K ohms 1/16W
R111	YF2116220JT	Carbon	22 ohms 1/16W
R112	YF2116362JT	Carbon	3.6K ohms 1/16W
R113,114	YF2116152JT	Carbon	15K ohms 1/16W
R115	YF2116100JT	Carbon	10 ohms 1/10W
R116	YF2116101JT	Carbon	100 ohms 1/10W
R117	YF2116103JT	Carbon	10K ohms 1/16W
R118	YF2116221JT	Carbon	220 ohms 1/16W
R119	YF2116223JT	Carbon	22K ohms 1/16W
R120	YF2116473GT	Carbon	47K ohms 1/16W
R121	YF2116471JT	Carbon	470 ohms 1/16W
R122	YF2116102GT	Carbon	1K ohms 1/16W
R123	YF2116682JT	Carbon	6.8K ohms 1/16W
R124	YF2116152JT	Carbon	1.5K ohms 1/16W
R125	YF2116682JT	Carbon	6.8K ohms 1/16W
R126	YF2116332JT	Carbon	3.3K ohms 1/16W
R127	YF2116822JT	Carbon	8.2K ohms 1/16W
R128	YF2116114JT	Carbon	110K ohms 1/16W
VR1	EVML3GA00B13	Variable Resistor	1K ohms
VR2	EVML3GA00B54	Variable Resistor	50K ohms
VR3	EVML3GA00B55	Variable Resistor	500K ohms
VR4-6	EVML3GA00B25	Variable Resistor	200K ohms
VR7	EVML3GA00B53	Variable Resistor	5KB ohms
C1	ECEA1AKA101	Electrolytic	100 µF 10V
C2	ECSF1CE476	Electrolytic	47 µF 16V
C3	YF400560CHJT	Ceramic	56 pF
C4	ECEA1CKA101	Electrolytic	100 µF 16V
C5	ECSF1CE476	Electrolytic	47 µF 16V
C7	ECEA0JU471	Electrolytic	470 µF 6.3V
C8	YF400224FZT	Ceramic	0.22 µF
C9	ECEA1AKS470	Electrolytic	47 µF 10V
C10	ECSF1CE156	Electrolytic	15 µF 16V
C11	YF400101CHJT	Ceramic	100 pF
C12	ECEA1AKS470	Electrolytic	47 µF 10V
C13,14	YF400150CHJT	Ceramic	15 pF
C15	ECEA1CKA101	Electrolytic	100 µF 16V
C16	YF400100CHDT	Ceramic	10 pF
C17,18	YF400070CHDT	Ceramic	7 pF (CH)
C19-21	YF400121CHJT	Ceramic	120 pF
C24,25	YF400104FZT	Ceramic	0.1 µF
C26	ECEA1AKS470	Electrolytic	47 µF 10V
C27	ECSF1CE476	Electrolytic	47 µF 16V
C28	ECSF1AE476	Electrolytic	47 µF 10V
C29	YF400104FZT	Ceramic	0.1 µF
C30,31	ECEA1AKS470	Electrolytic	47 µF 10V
C32	YF400101CHJT	Ceramic	100 pF
C33	YF400050CHDT	Ceramic	5 pF
C34	ECSF1CE476	Electrolytic	47 µF 16V
C35	ECEA1HKS010	Electrolytic	1 µF 50V
C36	YF400050CHDT	Ceramic	5 pF
C37	ECSF1CE476	Electrolytic	47 µF 16V
C38	ECEA1CKA101	Electrolytic	100 µF 16V
C39	YF400102XKT	Ceramic	1000 pF
C40	ECSF0JE107	Tantalum	1000 µF
C41	YF400103XKT	Ceramic	0.01 µF

REF.NO.	PART NO.	DESCRIPTION	
C42	ECEA1AKS470	Electrolytic	47 µF 10V
C43	YF400224FZT	Ceramic	0.22 µF
C44	YF400101CHJT	Ceramic	100 pF
C45	ECEA1CKA101	Electrolytic	100 µF 16V
C46	ECQB1H102JZ	Plastic	1000 pF 50V
C47	ECSF1AE476	Electrolytic	47 µF 10V
C48,49	ECQB1H102JZ	Plastic	1000 pF 50V
C50	ECSF1AE476	Electrolytic	47 µF 10V
C51	ECQB1H102JZ	Plastic	1000 pF 50V
C52	ECSF1AE476	Electrolytic	47 µF 10V
C53	ECEA1CKA101	Electrolytic	100 µF 16V
C54	ECEA1CKS470	Electrolytic	47 µF 16V
C55	ECEA1VKN2R2	Electrolytic	2.2 µF 35V
C56	YF400104FZT	Ceramic	0.1 µF
C57	ECSF1CE106	Electrolytic	10 µF 16V
C58	ECSF1CE105	Electrolytic	1 µF 16V
C59	ECEA1AKS470	Electrolytic	47 µF 10V
C60	ECEA1AKA101	Electrolytic	100 µF 10V
C61	YF400220CHJT	Ceramic	22 pF
C62	ECEA1AKA101	Electrolytic	100 µF 10V
C63	YF400224FZT	Ceramic	0.22 µF
C64	ECEA1AU471	Electrolytic	470 µF 10V
C65	ECEA0JKA331	Electrolytic	330 µF 6.3V
C66	ECEA1CKA100	Electrolytic	10 µF 16V
C67	YF400560CHJT	Ceramic	546 pF
C68	YF400101CHJT	Ceramic	100 pF
C69	YF400390CHJT	Ceramic	39 pF
C70	YF400224FZT	Ceramic	0.22 µF
C71	YF400104FZT	Ceramic	0.1 µF
C72	YF400220CHJT	Ceramic	22 pF
C73	YF400050CHJT	Ceramic	5 pF
C74	YF400100CHJT	Ceramic	10 µF
C75,76	YF400224FZT	Ceramic	0.22 µF
C77	YF400150CHJT	Ceramic	15 pF
C78	YF400100CHJT	Ceramic	10 µF
C79	YF400090CHDT	Ceramic	9 pF
C80	YF400080CHDT	Ceramic	8 pF
CT1	YWCDX20APS	Trimmer Capacitor	
L1	EIL7EM001Q	Coil	
L2	EIL7EM002Q	Coil	
L3	YWNL32220K	Coil	22 µH
L4,5	YWNL32100K	Coil	
L6	EIL7EN010Q	Coil	
L7	EIL7EN011Q	Coil	
L8	EIL7EN012Q	Coil	
L9	YWF055212	Coil	
L10	YWF055213	Coil	
L11	YWF055214	Coil	
CF1	YWT5V8MLPF	Filter	
CF3	ELKTH101GA	Filter	
CN1	FCN215Q050GA	Connector	
TP1-9	YW32BM12R5	Test-pin	
M19	YWV2HA0993A3	Shield Cover A	
M20	YWV2HA0996A2	Shield Cover B	
M40	YWCBE-14	Card Holder	

MODULATOR BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB4 (NLA)	YWVKZRCU7E4A	Printed Circuit Board Assy	
IC1	NJM1496M	IC	
IC2	YWLM1881M	IC	
IC3	YWTC4S69F	IC	
IC4	YWTC4S66FR	IC	
IC5	TLC272CPS	IC	
IC6	YWSN16913P	IC	
IC7	YWTC4S66FR	IC	
IC8	YWTC7S08F	IC	
IC9	MN74HC393S	IC	
IC10	MN4538BS	IC	
IC11	YWTC7S08F	IC	
IC12	NJM1496M	IC	
IC13,14	YWTC4S69F	IC	
IC15-17	YWTC4S66FR	IC	
IC18	YWTC4S71F	IC	
IC19	UPD74HC164G	IC	
IC20	YWTC7S04F	IC	
IC21	YWUPD74HC10G	IC	
Q1,2	2SD601-RS	Transistor	
Q3	2SC2404-CD	Transistor	
Q4	2SC3757-Q	Transistor	
Q5,6	2SC2404-CD	Transistor	
Q7	2SC3757-Q	Transistor	
Q8	2SC2405-ST	Transistor	
Q9-11	2SC3757-Q	Transistor	
Q12	2SB793-RS	Transistor	
Q13	2SD601-RS	Transistor	
Q14	2SA1022-C	Transistor	
Q15	2SC2404-CD	Transistor	
Q16-18	2SD601-RS	Transistor	
D1	YWHZ2BLL	Diode	
D2	MA1062-L	Diode	
D3	MA151WA	Diode	
D4-10	MA151K	Diode	
D11	MA1039-M	Diode	
R2	YF2116243JT	Carbon	24K ohms 1/16W
R3	YF2116273GT	Carbon	27K ohms 1/16W
R4	YF2116331JT	Carbon	330 ohms 1/16W
R5	YF2116472GT	Carbon	4.7K ohms 1/16W
R6	YF2116331JT	Carbon	330 ohms 1/16W
R7,8	YF2116223JT	Carbon	22K ohms 1/16W
R9	YW2116182JT	Carbon	1.8K ohms 1/16W
R10	YF2116472GT	Carbon	4.7K ohms 1/16W
R11	YF2116122JT	Carbon	1.2K ohms 1/16W
R12,13	YF2116821GT	Carbon	820 ohms 1/16W
R14,15	YF2116471JT	Carbon	470 ohms 1/16W
R16	YF2116103JT	Carbon	10K ohms 1/16W
R17,18	YF2116332JT	Carbon	3.3K ohms 1/16W
R19	YF2116102GT	Carbon	1K ohms 1/16W
R20	YF2116471JT	Carbon	470 ohms 1/16W
R21,22	YF2116102GT	Carbon	1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R24,25	YF2116104JT	Carbon	100K ohms 1/16W
R26	YF2116102GT	Carbon	1K ohms 1/16W
R27	YW2116182JT	Carbon	1.8K ohms 1/16W
R28	YF2116472GT	Carbon	4.7K ohms 1/16W
R29	YF2116301JT	Carbon	300 ohms 1/16W
R30	YF2116681JT	Carbon	680 ohms 1/16W
R31	YF2116102GT	Carbon	1K ohms 1/16W
R32	YW2116182JT	Carbon	1.8K ohms 1/16W
R33	YF2116101JT	Carbon	100 ohms 1/10W
R34	YF2116102GT	Carbon	1K ohms 1/16W
R35	YF2116562JT	Carbon	5.6K ohms 1/16W
R36	ERJ6GEYJ103	Carbon	10K ohms 1/16W
R37,38	YF2116102GT	Carbon	1K ohms 1/16W
R39	YF2116182GT	Carbon	1.8K ohms 1/16W
R40	YW2116242JT	Carbon	2.4K ohms 1/16W
R42	YF2116330JT	Carbon	33 ohms 1/16W
R43	YF2116432JT	Carbon	4.3K ohms 1/16W
R44	YF2116222JT	Carbon	2.2K ohms 1/16W
R45	ERJ6GEYJ102	Carbon	11K ohms 1/16W
R46	YF2116271JT	Carbon	270 ohms 1/16W
R47	YF2116152JT	Carbon	1.5K ohms 1/16W
R48	YF2116103JT	Carbon	10K ohms 1/16W
R49	ERDS2TJ910	Carbon	91 ohms 1/4W
R50	YF2116684JT	Carbon	680K ohms 1/16W
R51-54	YF2116103JT	Carbon	10K ohms 1/16W
R55,56	YF2116223JT	Carbon	22K ohms 1/16W
R57	YF2116103JT	Carbon	10K ohms 1/16W
R58	YF2116562JT	Carbon	5.6K ohms 1/16W
R59	YF2116103JT	Carbon	10K ohms 1/16W
R60	YF2116224JT	Carbon	220K ohms 1/16W
R61	YWR1220P223D	Metal	22K ohms
R62	YWR1220P332D	Metal	3.3K ohms
R63	YFR1220P392D	Metal	3.9K ohms
R64	YF2116103JT	Carbon	10K ohms 1/16W
R65,66	YF2116220JT	Carbon	22 ohms 1/16W
R67	YF2116102GT	Carbon	1K ohms 1/16W
R69	YW2116182JT	Carbon	1.8K ohms 1/16W
R70-73	YF2116102GT	Carbon	1K ohms 1/16W
R74	YF2116222GT	Carbon	2.2K ohms 1/16W
R75	YF2116102GT	Carbon	1K ohms 1/16W
R76	YF2116752JT	Carbon	7.5K ohms 1/16W
R77	YF2116472GT	Carbon	4.7K ohms 1/16W
R78,79	YF2116102GT	Carbon	1K ohms 1/16W
R80,81	YF2116472GT	Carbon	4.7K ohms 1/16W
R82	YF2116122JT	Carbon	1.2K ohms 1/16W
R83	YF2116821GT	Carbon	820 ohms 1/16W
R84	YF2116102GT	Carbon	1K ohms 1/16W
R85	YF2116471JT	Carbon	470 ohms 1/16W
R86	YF2116750JT	Carbon	75 ohms 1/16W
R87	YF2116103JT	Carbon	10K ohms 1/16W
R88,89	YF2116332JT	Carbon	3.3K ohms 1/16W
R90	YF2116102GT	Carbon	1K ohms 1/16W
R91	YF2116471JT	Carbon	470 ohms 1/16W
R92	YF2116332JT	Carbon	3.3K ohms 1/16W
R93,94	YF2116102GT	Carbon	1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R95,96	YF2116683GT	Carbon	68K ohms 1/16W
R97	YF2116102GT	Carbon	1K ohms 1/16W
R98	YF2116103JT	Carbon	10K ohms 1/16W
R100	YF2116223JT	Carbon	22K ohms 1/16W
R101,102	YF2116511JT	Carbon	510 ohms 1/16W
R103	YF2116271JT	Carbon	270 ohms 1/16W
R104	YF2116334JT	Carbon	330K 1/16W
R105	YF2116393GT	Carbon	39K ohms 1/16W
R106	YF2116102GT	Carbon	1K ohms 1/16W
R107	YF2116132JT	Carbon	1.3K ohms 1/16W
R110,113	YF2116202JT	Carbon	2K ohms 1/16W
R111,112	YF2116201JT	Carbon	200 ohms 1/16W
VR1-3	EVML3GA00B13	Variable Resistor	1K ohms
VR4	EVML3GA00B23	Variable Resistor	2K ohms
VR5	EVML3GA00B24	Variable Resistor	20K ohms
VR6,7	EVML3GA00B13	Variable Resistor	1K ohms
C1	ECEA1CKA101	Electrolytic	100 μF 16V
C2	ECEA1CKA100	Electrolytic	10 μF 16V
C4	ECEA1AKS470	Electrolytic	47 μF 10V
C5	ECEA1AKN470	Electrolytic	47 μF 10V
C6	ECEA1AKA221	Electrolytic	220 μF 10V
C7,8	YF400103XKT	Ceramic	0.01 μF
C9	ECEA1CU471	Electrolytic	470 μF 16V
C10	ECSF1CE476	Tantalum	47 μF 16V
C11	ECEA1CKA101	Electrolytic	100 μF 16V
C12	ECEA0JKN470	Electrolytic	47 μF 6.3V
C13	ECEA1CKA101	Electrolytic	100 μF 16V
C14	ECSF1AE107	Tantalum	100 μF 10V
C15	ECEA1AKN470	Electrolytic	47 μF 10V
C16	ECEA0JKA331	Electrolytic	330 μF 6.3V
C17	ECSF1AE685	Tantalum	6.8 μF 10V
C18	ECSF1CE476	Tantalum	47 μF 16V
C19	ECEA1AU222	Electrolytic	2200 μF 10V
C20	ECEA1CKA101	Electrolytic	100 μF 16V
C21	ECSF1AE476	Electrolytic	47 μF 10V
C22	YF400102XKT	Ceramic	1000 pF
C23,24	YF400104FZT	Ceramic	0.1 μF
C25	YF400224FZT	Ceramic	0.22 μF
C26	ECEA1AKA220	Electrolytic	22 μF 10V
C27	YF400103XKT	Ceramic	0.01 μF
C28	YF400102XKT	Ceramic	1000 pF
C29	ECEA0JKA221	Electrolytic	220 μF 6.3V
C30	YF400103XKT	Ceramic	0.01 μF
C31	ECQB1H102JZ	Plastic	1000 pF 50V
C32	ECSF1VE105	Tantalum	1 μF 35V
C33	ECEA1AKS101	Electrolytic	100 μF 10V
C35	YF400224FZT	Ceramic	0.22 μF
C36	ECEA1AKS470	Electrolytic	47 μF 10V
C37	YF400104FZT	Ceramic	0.1 μF
C38	YW400560UJJT	Ceramic	56 pF
C39	ECEA1AKS470	Electrolytic	47 μF 10V
C40,41	YF400120CHDT	Ceramic	12 pF
C42-44	YF400121CHJT	Ceramic	120 pF
C45,46	YF400120CHDT	Ceramic	12 pF
C47-49	YF400101CHJT	Ceramic	100 pF

REF.NO.	PART NO.	DESCRIPTION	
C50	ECEA1AKS101	Electrolytic	100 μF 10V
C51	ECQB1H103JZ	Plastic	0.01 μF 50V
C52	ECSF1CE476	Electrolytic	47 μF 16V
C53	ECEA1CKA101	Electrolytic	100 μF 16V
C54,55	ECEA1AKN470	Electrolytic	47 μF 10V
C56	ECEA1AKA221	Electrolytic	220 μF 10V
C57	YF400103XKT	Ceramic	0.01 μF
C58,59	YF400100CHDT	Ceramic	10 pF
C60-62	YF400101CHJT	Ceramic	100 pF
C65	YF400103XKT	Ceramic	0.01 μF
C66	ECEA0JU331	Electrolytic	330 μF 6.3V
C67	ECSF1EE335	Tantalum	3.3 μF 25V
C68	YF400224FZT	Ceramic	0.22 μF
C69	YF400220CHJT	Ceramic	22 pF
C70	ECEA1AU471	Electrolytic	470 μF 10V
C71,72	ECEA0JU471	Electrolytic	470 μF 6.3V
C73	YW400560UJJT	Ceramic	56 pF
C74	YF400020CHDT	Ceramic	2 pF
C75	ECEA1CKA100	Electrolytic	10 μF 16V
C76	ECEA1JU221	Electrolytic	220 μF 63V
C77	YF400180CHJT	Ceramic	18 pF
C78,79	YF400220CHJT	Ceramic	22 pF
C80,83	YF400470CHJT	Ceramic	47 pF
C81,84	YF400330CHJT	Ceramic	33 pF
C82,85	YF400270CHJT	Ceramic	27 pF
C86	ECEA1CKA220	Electrolytic	22 μF 16V
L1	YWNL32390K	Coil	39 μH
L2	YWNL32330K	Coil	33 μH
L6	EIL7EN006Q	Coil	
L7	EIL7EN007Q	Coil	
L8	EIL7EN006Q	Coil	
L9	EL05SI470K	Coil	47 μH
L10	EIL7EN004Q	Coil	
L11	EIL7EN005Q	Coil	
L12,13	EIL7EN004Q	Coil	
L14	EIL7EN005Q	Coil	
L15	EIL7EN004Q	Coil	
L19	YWF055215	Coil	
L20	YWF055216	Coil	
L21	YWF055217	Coil	
SW1,2	YWSSSS912L4	Slide Switch	
X1	YWM2DA26M602	Crystal Oscillator	
CF1	YWYS30545	Filter	
CF2,3	YWT7K26MBPF	Filter	
CF6,7	YWT5V0R5MLPF	Filter	
CF8	YWYS30549	Filter	
CN1	FCN215Q050GA	50-pin Connector	
TP1-10	YW32BM12R5	Test-pin	
J2	YF2116330JT	Carbon	33 ohms 1/16W
M19	YWV2HA0993A3	Shield Covber A	
M22	YWV2HA0997A2	Shield Covber C	
M40	YWCBE-14	Holder	

MOTHER BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB5 (NLA)	YWVKZRCU7E5A	Printed Circuit BoardAssy
R1	ERDS2FJ101	Carbon 100 ohms 1/4W
R2,3	ERDS2TJ473	Carbon 47K ohms 1/4W
C1	ECEA1VU222	Electrolytic 2200 µF 35V
CN1-4	FCN214J050GA	50-pin Connector
CN5	YWB7PVH	7-pin Connector
CN7	YWB2BXHA	2-pin Connector
CN8	YW530141310	13-pin Connector
CN10	YW530140810	8-pin Connector
CN16	YW530140810R	8-pin Connector
CN19	YW530141210	12-pin Connector
CN20	YW530141310	13-pin Connector
CN6	YWB2PVH	2-pin Connector
CN9	YW530141010	10-pin Connector
CN14	YW530140410	4-pin Connector
CN17	YW530141010	10-pin Connector
CN18,21	YW530140310	3-pin Connector
E5	YWSN5053	Fuse Holder
TP1,3	YWTM028B	Test-pin
C2	ECQV1H104JZ	Plastic 0.1 µF 50V
C3	YWR2S16V470M	Electrolytic 47 µF 16V
C4,5	ECQV1H104JZ	Plastic 0.1 µF 50V
C6	YWR2S16V470M	Electrolytic 47 µF 16V
C7	ECQV1H104JZ	Plastic 0.1 µF 50V
SW1	YWS2150	Rotary Switch
J10-13	ERDS2TC0	Jumper Resistor
M9	YWA2NA0257A4	LED Spacer
M10	YWA2NB0257A4	LED Spacer

FRONT BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB6 (NLA)	YWVKBRCU7P1A	Printed Circuit Board Assy
Q1-3	2SD636-QRS	Transistor
D1	LN21RPH	LED Red
D2,3	LN338GPH	Diode
R1	ER0S2CKF1002	Metal 10K ohms 1/4W
R2	ER0S2CKF6201	Metal 6.2K ohms 1/4W
R3	ER0S2CKF1002	Metal 10K ohms 1/4W
R4	ER0S2CKF6201	Metal 6.2K ohms 1/4W
R5	ER0S2CKF9101	Metal 9.1K ohms 1/4W
R6	ER0S2CKF5101	Metal 5.1K ohms 1/4W
R7	ER0S2CKF7501	Metal 7.5K ohms 1/4W
R8	ER0S2CKF1801	Metal 1.8K ohms 1/4W
R9	ER0S2CKF8201	Metal 8.2K ohms 1/4W
R14	ERDS2TJ102	Carbon 1K ohms 1/4W
R15	ERDS2TJ683	Carbon 68K ohms 1/4W
R16	ERDS2TJ473	Carbon 47K ohms 1/4W
R17	ERDS2TJ392	Carbon 3.9K ohms 1/4W
R18	ERDS2TJ473	Carbon 47K ohms 1/4W
R19,20	ERDS2TJ103	Carbon 10K ohms 1/4W
R21	ERDS2TJ392	Carbon 3.9K ohms 1/4W
R22	ERDS2TJ683	Carbon 68K ohms 1/4W
R23	ERDS2TJ151	Carbon 150 ohms 1/4W
VR1,2	YWRJ13PR502	Variable Resistor 5K ohms
VR3	K11K11313B15	Variable Resistor 1K ohms
C1	YWR2S16V470M	Electrolytic 47 µF 16V

15-PIN CONNECTOR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB7 (NLA)	YWVKCRCU7P1A	Printed Circuit Board Assy
CN1	YWDA15STN	15-pin Connector

26-PIN CONNECTOR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB8	YWVKYRCU7P1A	Printed Board
CN101	SRB2A2126STH	26-pin Connector
M26	YWV6GA0189A4	Plate
M27	YWV2PA0470A4	Insulator Washer

REAR BOARD

REF.NO.	PART NO.	DESCRIPTION
PCB9 (NLA)	YWVKZRCU7P6A	Printed Circuit Board Assy
R1,2	ERDS2TJ750	Carbon 75 ohms 1/4W
C1	ECQV1H104JZ	Plastic 0.1 µF 50V
CN1,2	YWP2203A	4-pin Connector
CN3	YWP2189B	BNC Connector
CN4	YWM1824	S-VHS Connector
TP4	YWTM028B	Test-pin

POWER SUPPLY BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB10 (NLA)	YWSPP-142	Printed Circuit Board Assy	
IC101	EH-16	IC	
IC201	YWTA76431S	IC	
IC301	EH-17	IC	
IC401	YWTA76431S	IC	
TR101	2SK1082	FET	
TR102	2SD1913	Transistor	
TR103	2SB560E	Transistor	
TR201	2SC3694L	Transistor	
TR202	2SA1020-Y	Transistor	
TR203-207	2SC2240GR	Transistor	
TR301	2SK1082	FET	
TR302	2SC2240GR	Transistor	
D101	YWD3SBA60	Diode	
D102	YWERB38-05	Diode	
D103,104	RGP10K	Diode	
D105	YWERA81-004	Diode	
D106-108	YWERB38-05	Diode	
D109	YWERA81-004	Diode	
D110	YWERB38-05	Diode	
D201	YWFML-33S	Diode	
D202	YWERB38-05	Diode	
D203	RGP10K	Diode	
D204-206	YWERA81-004	Diode	
D207,208	YWERB38-05	Diode	
D301	RGP10K	Diode	
D302,303	YWERA81-004	Diode	
D402	YWERD38-06	Diode	
ZD101	YWRD62EB	Zener Diode	
ZD102	YWRD24EB1	Zener Diode	
ZD103	YWRD03EB4	Zener Diode	
ZD201	YWRD30EB3	Zener Diode	
ZD401,402	YWRD62EB	Zener Diode	
PC201	TLP732GRHLF2	Photo Coupler	
PC202	TLP732GRHLF2	Photo Coupler	
PC401-403	TLP732GRHLF2	Photo Coupler	
SCR101	5P4M	Thyrister	
R102,103	ERG1S473J	Metal	47K ohms 1W
R104	ERG1S151J	Metal	150 ohms 1W
R105	ERG1S104J	Metal	100K ohms 1W
R106,107	ERQ12AJ100J	Metal	10 ohms 1/2W
R108	ERG2ANJR22	Metal	0.2 ohms 2W
R109	ERQ12AJ300	Carbon	30 ohms 2W
R110-112	RD25FJ394	Carbon	390K ohms 1/4W
R114,115	ERG1SJ303	Metal	30K ohms 1W
R116	ERG1SJ473	Metal	10 ohms 1W
R117	ERG1S683J	Metal	68K ohms 1W
R118	ERG1SJ100	Metal	10 ohms 1W
R119	ERO50CKF4703	Solid	470K ohms 1/2W
R120	ERD25FJ102	Carbon	1K ohms 1/4W
R122	YWA53K150J	Metal	15 ohms 5W
R123,124	ERG1ANJ473	Metal	47K ohms 1W
R201	RSM1S120J	Metal	12 homs 1W
R202,203	RSM1S683J	Metal	68K ohms
R204-206	RSM2S202J	Metal	2K ohms 2W
R207	ERD50FJ100	Carbon	10 ohms 1/2W
R208,209	RSM2SOR1J	Metal	0.1 ohms 2W
R210,211	ERD25FJ103	Carbon	10K ohms 1/4W
R212	ERD25FJ102	Carbon	1K ohms 1/4W
R213	ERD50FJ332	Carbon	3.3K ohms 1/2W
R214	ERD25FJ103	Carbon	10K ohms 1/4W
R215	ERD25FJ202	Carbon	2K ohms 1/4W
R216-219	ERD25FJ102	Carbon	1K ohms 1/4W
R220	ERD25FJ101	Carbon	100 ohms 1/4W
R221-224	ERD25FJ103	Carbon	10K ohms 1/4W
R225	ERD25FJ242	Carbon	2.4K ohms 1/4W
R226	ERD25FJ333	Carbon	33K ohms 1/4W
R227	ERD25FJ362	Carbon	3.6K ohms 1/4W
R228	ERD25FJ103	Carbon	10K ohms 1/4W
R229	ERD25FJ202	Carbon	2K ohms 1/4W
R230	ERD25FJ102	Carbon	1K ohms 1/4W
R231	RSM2S202J	Carbon	2K ohms 1/4W
R301	ERG1SJ104	Metal	100K ohms 1W
R302	ERG2ANJ120	Metal	12 ohms 2W
R303	ERQ12HJ220	Metal	22 ohms 1/2W
R304	ERQ12HJ102	Carbon	1K ohms 1/2W
R305	ERX2NJR33	Metal	0.33 ohms 2W
R306	ERQ12HJ360	Carbon	36 ohms 1/2W
R311	ERD25FJ752	Carbon	7.5K ohms 1/4W
R401	ERG1ANJ220	Metal	22 ohms 1W
R402	ERD25FJ202	Carbon	2K ohms 1/4W
R403-405	ERG2ANJ823	Metal	82K ohms 2W
R406	ERD25FJ242	Carbon	2.4K ohms 1/4W
R407	ERD25FJ103	Carbos	10K ohms 1/4W
R408	ERD25FJ393	Carbon	39K ohms 1/4W
R409	ERD25FJ433	Carbon	43K ohms 1/4W
R410	ERD25FJ333	Carbon	33K ohms 1/4W
R411	ERD25FJ152	Carbon	1.5K ohms 1/4W
R412	ERD25FJ622	Carbon	6.2K ohms 1/4W
VR201	EVND4AA00B13	Variable Resistor 1K ohms	
VR401	EVND4AA00B13	Variable Resistor 1K ohms	
C101,102	ECQU2A224KN	Film	0.22μF
C103-105	DE1010B471K	Ceramic	470 pF
C107,108	ECOS2GA101CA	Electrotic	100 μF 400V
C109	ECQE6103KZ	Film	0.01 μF
C110	ECEA1HNX220S	Electrotic	22 μF 50V
C111	ECEA1HN470S	Electrotic	47 μF 50V
C112	ECQV1H105JZ	Film	1 μF 50V
C114	ECQE2105KS	Film	1 μF
C115	YWDEP103K-F	Film	0.01 μF
C201	DE1210BN102K	Ceramic	1000 pF
C202	ECQE6103KZ	Film	0.01 μF 630V
C203	DE0907BN471K	Ceramic	470 pF
C204	ECQE4333KF	Film	0.033 μF 400V
C206	ECEA1VGE102	Electrotic	1000 μF 35V

REF.NO.	PART NO.	DESCRIPTION	
C207,208	ECQE6103KZ	Film	0.01 µF
C209	ECEA1HFS101	Electotic	100 µF 50V
C211	DEP104K-F	Film	0.1 µF
C212	ECQV1H105JZ	Film	1 µF 50V
C213	DEP104K-F	Film	0.1 µF
C301	ECQE6103KZ	Film	0.01 µF 630V
C302	DE0707BN221K	Ceramic	220 pF
C303	ECEA1VF470	Electrotic	47 µF 35V
C304	ECEA1HN220S	Electrotic	22 µF 50V
C306	YWDEP103K-F	Film	0.01 µF
C401	DE0707BN101K	Ceramic	100 pF
C402-404	ECEA2DG470X	Electrotic	47 µF 200V
C405-406	ECQE6103KZ	Film	0.01 µF
C407	ECQV1H473JZ	Film	0.047 µF 50V
C408	ECQE6103KZ	Film	0.01 µF
CH101	YWSS28H25045	Line Filter	
CH102	SS28H-10250	Line Filter	
CH103	DRAWM2-2K300	Choke Coil	
CH104,105	FBH5177180F	Beads Core	
CH201	YWFD-265	Choke Coil	
CH202	HK05S0554000	Choke Coil	
CH203,204	FBH5177180F	Choke Coil	
CH205,206	T314OP422H	Choke Coil	
CH401	CHDR8X115A7M	Choke Coil	
T101 ⚠	YWSPT142-1	Transformer	
T301 ⚠	YWSPT142-2	Transformer	
CN101	YW350789-1	pin Connector	
CN201	YWB7PVH	7-pin Connector	
CN202	YWB2B-XH-A	2-pin Connector	
CN401	YWB2PVH	2-pin Connector	
E401	YWMERB-FGL3	3-pin Lug	
E402	YWAB3X2X4.500	Beads Core	
E403	YWMES-0001	Fixer	
E404	YW851440	Cap Sleep	
E405	BARLOK-08432	Band	
E406	YWMSP142AG1	Heat Sink	
M41	MSP128ALCA01	Power Chassis	
M42	YWST-5044FM	Mount Angle	
M43	YWMSP128HS1	Heat Sink	
M44	YW11PA15251P	Heat Sink for TR102	
M45	YW90T-T0-3P	Rubber	
M46	YW90T-T0-220	Rubber	

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
CN110	YFCNR-1204P	4-pin Plug Connector
M51	YWV8QA2708AN	Operating Instructions
M54	XZB26X40C05	Polyethylene Bag
M55	XZB45X63C05	Polyethylene Bag
M56	YWT20X35C03	Polyethylene Bag
M57	YWV9CB1663BN	Packaging Assy

REF.NO.	PART NO.	DESCRIPTION
REMOTE CONTROL BOX WV-CB700		
MISCELLANEOUS		
CN10	HR10A10R10P	10-pin Connector
CN11,12	YWBNC-BRZ-1	BNC Connector
M1	YWV5WB1271A3	Front Panel
M2	YWV5DA0312A4	Ornament
M3	YWV5RA0273B3	Knob
M4	YWV5KA1160A3	Operating Case
M5	YWV6EA0150A3	Lid
M6	YWV4JA0374A4	Spring for Lock Knob
M7	YWV5RB0030A4	Lock Knob
M9	YWV1FA0064A4	Nut
M10	YWV4JA0375A4	Spring
M11	YWV7QA2599A4	Main Label
M13	YWV1EA0220A4	Special Screw
M14	YWV1KA0141A4	Washer
M15	YWV4JA0373A4	Coil Spring
M16	YWV2FA0552A4	Cushion
M17	YWV5RA0258A4	Knob A
M18	YWV5RB0281A4	Knob B
M19	YWV2NA0368A4	Spacer
M20	YWV5RA0279B3	Knob C
M21	YWV2JA0080A4	Bracing Strut
M23	YWV2FA0540A4	Cushion
M24	YWV2SA1982A4	Mounting Angle
M25	YWV5EA1050A4	Cover
M26	YWV6EA0151A3	Lid
M27	YWV5KA1159A1	Main Case
M28	YWV2SA1981A4	Mounting Angle
M29	YFA2PA0053B4	Insulator Washer
M30	YWA2PA0054A4	Washer
M31	YFV1KA0023B4	Washer
M32	YWV7QA2699A4	Main Label
M34	YWV5LA0047A4	Rubber Foot

REF.NO.	PART NO.	DESCRIPTION	
MAIN BOARD			
PCB1 (NLA)	YWVKZRCB7P1A	Printed Circuit Board Assy	
IC1	YWNJM78M05FA	IC	
IC2	MN74HC32S	IC	
IC3	MN74HC132S	IC	
IC4	MN74HC125S	IC	
IC8	MN4051BS	IC	
IC10	NJM2904M	IC	
IC12	NJM2903M	IC	
IC13	NJM2904M	IC	
IC14	MN18888CCY	LSI	
IC15	YWM51957BFP	IC	
Q1,2	2SD1819-QRS	Transistor	
Q3	2SB1219-QRS	Transistor	
D1,3	MA143	Diode	
D6	MA141K	Diode	
D7	MA143	Diode	
D8	MA141K	Diode	
D9	MA165	Diode	
R1,2	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R5	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R6	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R7	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R10,15	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R16	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R17	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R18,19	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R22	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R23	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R24,30	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R32,34	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R35	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R46	YWR0816P103D	Metal	10K ohms
R47	YWR0816P303D	Metal	30K ohms
R48	YWR0816P103D	Metal	10K ohms
R51	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R52-54	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R57	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R58-63	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R64	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R65,67	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R68	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R69,70	YWR0816R104D	Metal	100K ohms
R71	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R72	YWR0816P302D	Metal	3K ohms
R73	YWR0816R473D	Metal	47K ohms
R74	YWR0816R104D	Metal	100K ohms
R75	YWR0816P302D	Metal	3K ohms
R76	YWR0816R473D	Metal	47K ohms
R77	YWR0816R104D	Metal	100K ohms
R78-85	ERJ3GEYJ102	Carbon	1K ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION	
R86-93	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R100-102	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R104	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R106	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R107	YWR0816P123D	Metal	12Kohms
R108	YWR0816P472D	Metal	4.7K ohms
R109	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R110	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R121	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R123	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R124	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R126	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R128-130	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R139-143	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R176	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R177,178	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R195	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R206	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R209	ERJ3GEY0R00	Carbon	0 ohms 1/16W
R211	ERJ3GEYJ221	Carbon	220 ohms 1/16W
Z1	YWRKM10L503F	Block Resistor	
C1	ECEA1CKA101	Electrolytic	100µF 16V
C2	YW5F104Z2VB	Ceramic	0.1 µF
C3	ECEA0JKS101	Electrolytic	100 µF 6.3V
C4	ECEA0JS470	Electrolytic	47 µF 6.3V
C5	YW5CH101J5VB	Ceramic	100 pF
C8	ECEA0JS470	Electrolytic	47 µF 6.3V
C9	YW5CH101J5VB	Ceramic	100 pF
C15,23	ECEA0JS470	Electrolytic	47 µF 6.3V
C27	YW5CH101J5VB	Ceramic	100 pF
C30	YW5CH151J5VB	Ceramic	150 pF
C31	ECEA0GKS470	Electrolytic	47 µF 4V
C32	ECEA1CKS470	Electrolytic	47 µF 16V
C33	ECEA0JS470	Electrolytic	47 µF 6.3V
C34,35	YW5CH151J5VB	Ceramic	150 pF
C36	ECEA0JKS101	Electrolytic	100 µF 6.3V
C37	ECEA0JKA221	Electrolytic	220 µF 6.3V
C38	ECSF1AE476	Tantalum	47 µF 10V
C39	YW5F104Z2VB	Ceramic	0.1 µF
C40,41	ECSF1AE476	Tantalum	47 µF 10V
C42	YW5F104Z2VB	Ceramic	0.1 µF
C43	ECEA0JKA221	Electrolytic	220 µF 6.3V
C44	ECEA1HKSR47	Electrolytic	0.47 µF 50V (KS)
C46	YW5CH330J5VB	Ceramic	33 pF
C47,48	ECEA1CKS470	Electrolytic	47 µF 16V
C49,52	YW5F104Z2VB	Ceramic	0.1 µF
C53	YW5F104Z2VB	Ceramic	0.1 µF
C54	ECSF1VE104	Tantalum	0.1 µF 35V
C55	ECEA0JS470	Electrolytic	47 µF 6.3V
C86	YW5F104Z2VB	Ceramic	0.1 µF
C90	ECEA1HKSR47	Electrolytic	0.47 µF 50V (KS)
L1,2	YWNL32100K	Coil	
L4	YWNL321R0M	Coil	
SW18	YWSSSS913L4	Slide Switch	
X1	EF0GC8004A4	Oscillator	

REF.NO.	PART NO.	DESCRIPTION
CN1	YW530151010	10-pin Connector
CN2	YW530150410	4-pin Connector
CN4	YWDA15PTN	15-pin Connector
CN6	ILWY30SD15T	Connector
J3	ERJ8GCS0R00	Jumper Resistor
M24	YWV2SA1983A4	Mounting Angle

SWITCH BOARD

REF.NO.	PART NO.	DESCRIPTION	
PCB2 (NLA)	YWVKZRCB7P2A	Printed Circuit Board Assy	
IC6,7	MN4051BS	IC	
IC9	MN4051BS	IC	
IC11	NJM2902M	IC	
Q4-6	2SD1819-QRS	Transistor	
D11	LN338GPH	Diode	
D12	LN238RPH	Diode	
R111	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R112	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R113	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R114	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R115	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R116	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R117-119	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R120	ERJ3GEYJ470	Carbon	47 ohms 1/16W
R131	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R132,133	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R134	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R135,136	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R137,138	ERJ3GEYJ273	Carbon	27K ohms 1/16W
R144-147	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R148	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R149,150	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R151	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R152	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R153,154	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R155-166	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R167	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R168	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R169	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R170	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R171	ERJ3GEYJ203	Carbon	20K ohms 1/16W
R172	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R173,174	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R175	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R179-186	YWR0816P392D	Metal	3.9K ohms
R189	ERJ3GEYJ471	Carbon	470 ohms 1/16W
R190,191	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R192	ERJ3GEYJ471	Carbon	470 ohms 1/16W

REF.NO.	PART NO.	DESCRIPTION
R193	ERJ3GEYJ203	Carbon 20K ohms 1/16W
R194	ERJ3GEYJ393	Carbon 39K ohms 1/16W
R196	ERJ3GEYJ473	Carbon 47K ohms 1/16W
R197	ERJ3GEYJ471	Carbon 470 ohms 1/16W
R198	ERJ3GEYJ682	Carbon 6.8K ohms 1/16W
R199	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R200	ERJ3GEYJ203	Carbon 20K ohms 1/16W
R201	ERJ3GEYJ133	Carbon 13K ohms 1/16W
R202	ERJ3GEYJ471	Carbon 470 ohms 1/16W
VR1-4	K11K11324B15	Variable Resistor 100K ohms
VR5,6	YWRJ13P203	Variable Resistor 20K ohms
VR7	K11K11324B15	Variable Resistor 100K ohms
VR8	K11K11324B25	Variable Resistor 200K ohms
C21,22	ECEA0JS470	Electrolytic 47 µF 6.3V
C24	ECEA0JS470	Electrolytic 47 µF 6.3V
C25,26	YW5CH101J5VB	Ceramic 100 pF
C28	ECEA1CKS470	Electrolytic 47 µF 16V
C45	YW5CH101J5VB	Ceramic 100 pF
C61-64	YW5F104Z2VB	Ceramic 0.1 µF
C70,71	ECEA1HKSR47	Electrolytic 0.47 µF 50V (KS)
C72,73	YW5F104Z2VB	Ceramic 0.1 µF
C74-82	ECEA1HKSR47	Electrolytic 0.47 µF 50V (KS)
C83	YW5F104Z2VB	Ceramic 0.1 µF
C84,85	ECEA1HKSR47	Electrolytic 0.47 µF 50V (KS)
C87-89	YW5F104Z2VB	Ceramic 0.1 µF
C91	ECEA1HKSR47	Electrolytic 0.47 µF 50V (KS)
C92	YW5F104Z2VB	Ceramic 0.1 µF
C93	ECEA0JS470	Electrolytic 47 µF 6.3V
C94	ECEA0GKS470	Electrolytic 47 µF 4V
SW1,2	YWMBP312C	Toggle Switch
SW3	YWMBP312B	Toggle Switch
SW4	YWMBP312C	Toggle Switch
SW5	YWMBP312G	Toggle Switch
SW6	YWMBP312B	Toggle Switch
SW7	YWSS1016SPLA	Rotary Switch
SW8	YWMBP312C	Toggle Switch
SW9	S2050	Rotary Switch
SW10	YWMBP312B	Toggle Switch
SW11	YWS2150	Rotary Switch
SW13	YWSSSS223	Slide Switch
SW14	YWSKHHBS	Push Switch
SW15-17	YFKHH10914	Special Switch
SW19	YWSSCUA	Micro Switch
CN7	ILWY30PD15T	30-pin Connector
CN8	ILWY6PD15T	6-pin Connector
TP1	YW32BM5A	Test-pin
M21	YWA2NB0257A4	Spacer

REF.NO.	PART NO.	DESCRIPTION
REC SWITCH BOARD		
PCB3 (NLA)	YWVKZRCB7P3A	Printed Circuit Board Assy
SW12	YWB3F9100	Tokushu Switch
CN9	YWILWY6SD15T	Connector
ACCESSORY PARTS/PACKAGING PARTS		
E101	YWWVCA10B02U	RCB Cable Assy
M51	YWV8QA2624AN	Operating Instructions
M52	YFV8SA0009CN	Service Parts
M53	XZB26X40C05	Polyethylene Bag
M57	YWV9CB1661BN	Packaging Assy
RCU RACK MOUNT FRAME WV-Q70		
MISCELLANEOUS		
M1	YWV2SA1984A1	Mounting Angle
M2	YWV2LA0081A4	Joint A
M3	YWV2LA0082A4	Joint B
M4	YWV7QA2603A4	Main Label
M5	YWA5PA0063A4	Rack Components
ACCESSORY PARTS/PACKAGING PARTS		
M6	YWV8QA2529AN	Operating Instructions
M7	XZB26X40C05	Polyethylene Bag
M8	XZB45X63C05	Polyethylene Bag
M9	YWT050803	Polyethylene Bag
M10	YWT15X20C03	Polyethylene Bag
M11	YWV9CA1662BN	Packaging Assy
M12	YWV8FA0138A3	Packaging Label

TRIPOD MOUNTING ADAPTOR WV-QT700

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
M1	YWV2CA0335A2	Hold Plate for Slied Nuts
M2	YFV6FA0045A3	Lock Bracket
M3	YWV6FA0124A3	Mounting Bracket
M4	YWV6GA0184A1	Base Plate
M5	YFV4HA0008B4	Shaft for Lever
M6	YFV4HA0009A4	Lock Shaft
M7	YWV4RA0013B3	Lock Lever
M8	YFV2NA0062A4	Lock Spacer
M9	YFV2NA0063A4	Spacer for Lever
M10	YFV4JA0111A4	Lock Spring
M11	YFV4JA0112A4	Spring Plate A
M12	YFV4JA0113A4	Spring Plate B
M13	YWV4JA0288A4	Spring for Lever
M14	YWV7QA2563A4	Main Label
M15	YFV1EA0052A4	Special Screw
M16	YWV1FB0023A4	Slied Nut
M17	YFV4SA0002A4	Roller
M18	YFV4SA0003A4	Roller for Lock
M19	YWV4JA0363A4	Spring

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
M21	YWV8QA2482AN	Operating Instructions
M22	XZB26X40C05	Polyethylene Bag
M23	YWV9CB1632AN	Packaging Assy

5" VIEWFINDER BRACKET WV-Q71

MISCELLANEOUS

REF.NO.	PART NO.	DESCRIPTION
M1	YWV5MA0038A4	Shou Holder
M2	YFV5MA0011A4	Shoe

ACCESSORY PARTS/PACKAGING PARTS

REF.NO.	PART NO.	DESCRIPTION
M5	YWV8QA2545AN	Operating Instructions
M6	YWV9CA1659AN	Packaging Assy
M7	YWV8FA0130A4	Packaging Label